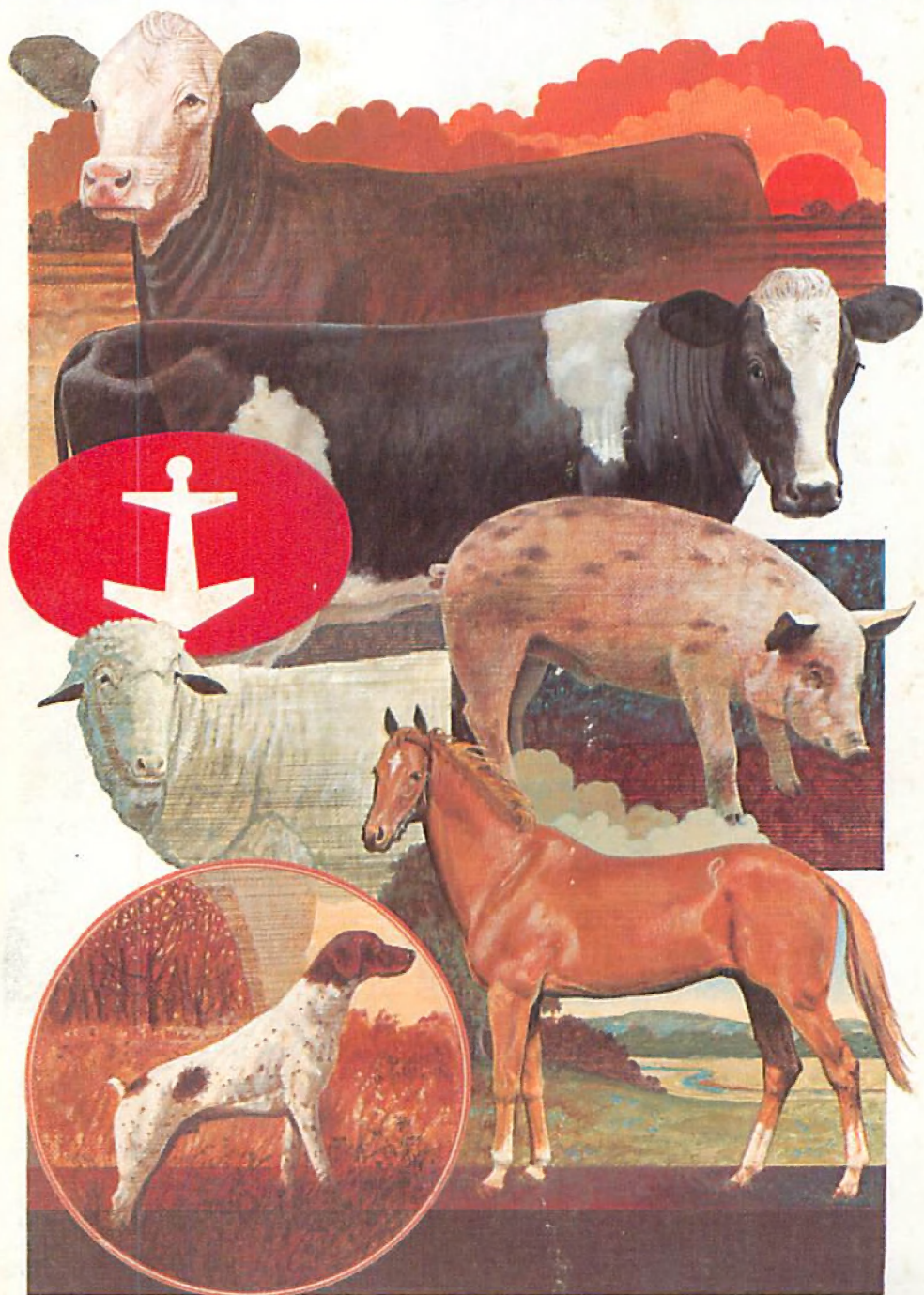


**ANCHOR**

# Veterinary Handbook

17TH EDITION





# A NEW PARENT, A NEW OPPORTUNITY



In October of 1981, Anchor Laboratories officially became the newest member of the Boehringer Ingelheim family of companies. In the past ten years, Boehringer Ingelheim Ltd. has been identified as one of the fastest growing pharmaceutical companies in the United States. It is a company with a singular commitment to quality health care. This new ownership places Anchor within a major, world-wide pharmaceutical and chemical company with a significant commitment to pharmaceutical research and achievement and a strong interest in animal health throughout the world.

Boehringer Ingelheim was founded in 1885 by Albert Boehringer who located his chemical-pharmaceutical firm on the Rhine River in Ingelheim, Germany. With just 21 employees, the company began production of potassium hydrogen tartrate which was obtained from wine vat residue. In the years that followed, the company gradually expanded, and in 1950 began its international growth. This growth was made possible in some cases by founding or acquiring partly- or wholly-owned subsidiaries and, in other cases, by making arrangements with representatives/agents. Today, Boehringer Ingelheim ranks among the first fifteen international pharmaceutical companies and is one of the "big three" in Germany. It is represented in more than 100 countries and accounts for yearly sales exceeding 1.7 billion dollars. Although pharmaceutical products make up the largest portion of the world-wide company, other major business components of Boehringer Ingelheim include diagnostic testing, reagents and services, agricultural chemicals, fine chemicals and organic acids, food additives, household chemicals, and veterinary products.

We here at Anchor are pleased to become a member of the Boehringer Ingelheim family and welcome the opportunities this association will bring to us and to the livestock producer.

**ANCHOR<sup>®</sup>**  
ANIMAL HEALTH



# Veterinary Handbook

**1983**

17th EDITION

A reference of  
animal health problems  
and product selection  
for the livestockman

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**ANCHOR LABORATORIES, INC.**

A Division of PHILIPS ROXANE, Inc.  
St. Joseph, Missouri 64502 U.S.A.

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Animal health is an important part of your livestock profit picture. The prevention and treatment of livestock health problems can make the difference between a profit and a loss to you.

This handbook provides you with a comprehensive reference of the major health problems affecting your animals. It is intended to clearly and concisely cover these problems, some of their most obvious symptoms, and appropriate preventive or treatment measures.

Many of the health problems covered in this handbook have a variety of symptoms . . . some of them very difficult to diagnose. In any case, you have already lost money if you wait for symptoms to show up. For these reasons, the most economical program is one of PREVENTIVE MEDICINE, consisting of full-time attention to sanitation, vaccination, management, and nutrition. For example: learn to recognize causes of diseases, purchase animals from reputable sources, eliminate wet places around tanks or in pastures, control parasites, use clean instruments, and keep good vaccination and medication records.

Following the prevention and treatment suggestions in this handbook can help you stop many health problems before they start, and result in greater profits for you.

**ANCHOR**<sup>®</sup>  
ANIMAL HEALTH

# BEEF COW/CALF HEALTH PROBLEMS

CONDITION	SYMPTOMS
<b>ABORTION:</b> See Brucellosis, Anaplasmosis, Leptospirosis, BVD, IBR, and Vibriosis.	
<b>ACETONEMIA:</b> See Ketosis, page 5.	
<b>ANAPHYLAXIS:</b> See Shock, Anaphylactic, page 7. Also see page 87.	
<b>ANAPLASMOSIS:</b> <i>Anaplasma marginale</i> . Spread by blood-sucking insects, unclean surgical and vaccination procedures.	Elevated temperature (103°-107°); yellowish membranes; depression; constipation; rough hair coats; anemia in advanced cases; jaundice; extreme weakness and unsteady gait.
<b>ANTHRAX:</b> <i>Bacillus anthracis</i> .	Sudden deaths in herd; excitement followed by depression, stupor, spasms, staggering; rapid respiration; high temperature (107°); bloody discharge from body openings; swellings on various parts of body.
<b>BACILLARY HEMOGLOBINURIA:</b> See Redwater Disease, page 7.	
<b>BANG'S DISEASE:</b> See Brucellosis.	
<b>BLACK DISEASE:</b> <i>Clostridium novyi</i> . Infectious Necrotic Hepatitis.	See symptoms for Blackleg and Malignant Edema.
<b>BLACKLEG:</b> <i>Clostridium chauvoei</i> .	Primarily in cattle 6-24 months old. Sudden deaths in young cattle; lameness; gaseous swellings beneath skin of shoulder, hip, breast, back of flank, which "crackle" when pressed with hand; depressed; complete lack of appetite; course of disease so rapid, symptoms may not be noticed.
<b>BLOAT:</b> Fermentation of food (forage crops) forming large quantities of gas in the rumen.	Rapid bloating.
<b>BOVINE RESPIRATORY DISEASE (BRD):</b> See Pneumonia, page 7.	
<b>BOVINE VIRUS DIARRHEA:</b> See Diarrhea, Bovine Virus, page 3.	
<b>BRUCELLOSIS:</b> Chronic, infectious disease transmitted from the reproductive tract through the digestive tract from contaminated food or water.	Most common during first pregnancy. Cow may abort one to three times; give birth to weaker calves; produce 25% to 30% less milk; often becomes sterile; has high percentage of retained placentas.
<b>CALF DIPHTHERIA:</b> Infection by <i>Fusobacterium necrophorum</i> . Same organism involved in foot rot, navel ill.	Depression; drooling of saliva; refusal of feed; coughing; yellowish discharge from nostrils; ulcers in mouth and tongue, with cheesy scabs; foul breath; difficult breathing with gasping and coughing.
<b>CALF PNEUMONIA:</b> Possible virus complicated with bacteria such as <i>Haemophilus somnus</i> , <i>Pasteurella multocida</i> and <i>Corynebacterium pyogenes</i> .	Primarily in calves 10 days to 4 months old. Typical pneumonia symptoms, labored breathing; discharges; high temperatures.





## PREVENTION\*

## TREATMENT\*

Control insects and external parasites.  
See Insecticide Chart, page 45-46.  
Consult your veterinarian.

Oxytetracycline I.V. by veterinary  
prescription.

Consult your veterinarian.

Oxytetracycline I. V. or massive doses  
of penicillin given early in course of  
disease.  
Consult your veterinarian.

**Bar-Vac**®-7/SOMNUS or **Bar-Vac**®  
PRODUCTS

NONE

**Bar-Vac**®-7/SOMNUS or **Bar-Vac**®  
PRODUCTS

5,000 units penicillin per lb. body wt.  
every 8 to 12 hours.

STOMACH TUBE  
TROCAR

Consult your veterinarian.

Consult your veterinarian.

ANCHO-DINE

ANCOSUL PRODUCTS  
OXY-TET 50 or OXY-TET 100  
TRIPLE SULFA PRODUCTS  
SUL-LITE

BAR SOMNUS  
BO-BAC 2X  
BAR SOMNUS-2P  
VITAMIN A-D-500  
VITAMIN A-D-B<sub>12</sub> INJECTABLE

OXY-TET 50 or OXY-TET 100  
ANCOSUL PRODUCTS  
CALF SCOUR, PNEUMONIA BOLUS  
BO-BAC 2X  
VITAMIN A-D-500

CONDITION	SYMPTOMS
<b>CALF SCOURS</b> (Colibacillosis or White Scour): Possible virus; various bacteria including <i>E. Coli</i> ; <i>Pasteurella</i> organisms; <i>Salmonella enteritidis</i> (Gaertner).	Listless; dull, sunken eyes; lack of appetite; weakness; high temperature; profuse watery diarrhea; sudden deaths; pneumonia. Less severe cases may continue to eat; have thin white or yellow manure.
<b>CASTRATION</b> (Infection)	
<b>COCCIDIOSIS:</b> Ingestion of coccidia.	Primarily in calves 3 weeks to 6 months old. Profuse diarrhea, blood tinged; in severe cases pure blood may be passed.
<b>DEHORNING:</b> (Infection, hemorrhage, maggots).	
<b>DEHYDRATION:</b> Stress conditions due to shipping, irregular feeding and watering, weaning, dehorning, castration, prolonged fever, diarrhea.	May be a cause of lowered resistance resulting in viral or bacterial infection; or, may be an aftermath of disease condition.
<b>DIARRHEA, BOVINE VIRUS (BVD):</b> Virus infection of digestive and/or respiratory system.	High temperatures; nasal discharge; poor appetite; respiratory symptoms; watery, slate-colored or yellowish diarrhea.
<b>DYSENTERY:</b> See Diarrhea and Scours.	
<b>EAR TICKS:</b> See Insecticide Chart, page 45-46	
<b>ENTEROTOXEMIA:</b> Considered due to <i>Clostridium perfringens</i> Type C and/or Type D organisms.	Signs of colic; uneasiness; straining; kicking at the abdomen; staggering gait; dullness; grinding of teeth; convulsions; coma. Bloody diarrhea may develop. Death usually occurs in 2 to 24 hours after first symptoms noticed.
<b>ENTEROTOXEMIA, HEMORRHAGIC:</b> <i>Clostridium perfringens</i> Type C.	Signs of colic; uneasiness; straining, and kicking at the abdomen. Bloody diarrhea may develop. Death usually occurs in 2 to 24 hours after first symptoms noticed.
<b>EXTERNAL PARASITES:</b> See Insecticide Chart, pages 45-46.	
<b>FACE FLY:</b> See Insecticide Chart, page 45-46.	
<b>FOOT ROT:</b> <i>Fusobacterium necrophorum</i> in cattle.	Lameness; infection between claws, swelling of foot or area just above hoof; foul odor.
<b>GRASS TETANY:</b> Uncertain but thought to be due to low blood levels of magnesium, possibly calcium, due to grazing lush pastures.	
<b>GRUBS</b> (Warbles): See Insecticide Chart, pages 45-46.	Nervousness; muscular twitching; excitement; convulsions.

\*Product listings and information, pages 54 thru 82.



# BEEF COW/CALF HEALTH PROBLEMS

PREVENTION*	TREATMENT*
BO-BAC 2X GENTLE IODINE SPRAY (to navel) C & D ANTITOXIN VITAMIN A-D-B <sub>12</sub> CALF & PIG SCOUR POWDER FEED-MATE 68®, Soluble or FEED MIX FEED-MATE Calf/Veal  DISINFECTANT, GENERAL SCREW WORM & EAR TICK SPRAY GENTLE IODINE SPRAY	CALF SCOUR BOLUS ANCOSUL PRODUCTS OXY-TET 50 or OXY-TET 100 AMINO-LITE PRODUCTS CALF SCOUR BUCKET MIX FEED-MATE PRODUCTS CALF SCOUR, PNEUMONIA BOLUS  OXY-TET 50 or OXY-TET 100 COMBINATION ANTIBIOTIC TRI-SULFA PRODUCTS GENTLE IODINE SPRAY BLUE LOTION SPRAY  ANCOSUL DRINKING WATER SOLUTION
DEHORN PASTE SCREW WORM & EAR TICK SPRAY  HYDRO-LITE ISOLITE   BVD VACCINE COMBINATION OF CHOICE   SCREW WORM & EAR TICK SPRAY  C & D TOXOID C & D ANTITOXIN FEED-MATE 68®, Soluble or FEED MIX FEED-MATE Calf/Veal   C & D TOXOID C & D ANTITOXIN FEED-MATE 68®, Soluble or FEED MIX FEED-MATE Calf/Veal   ANCHO-DINE	BLOOD STOPPER SCREW WORM & EAR TICK SPRAY  AMINO-LITE PRODUCTS ISOLITE HYDRO-LITE   AMINO-LITE HYDRO-LITE ISOLITE   SCREW WORM & EAR TICK SPRAY  C & D ANTITOXIN     C & D ANTITOXIN     ANCHO-DINE OXY-TET 50 or OXY-TET 100 ANCOSUL PRODUCTS TRIPLE SULFA PRODUCTS COMBINATION ANTIBIOTIC CALDEX MPK

CONDITION	SYMPTOMS
<p><b>HAEMOPHILUS SOMNUS COMPLEX:</b> A major contributing factor to Bovine Respiratory Disease (BRD); associated with IBR, BVD, PI<sub>3</sub> complex and <i>Pasteurella multocida-haemolytica</i>.</p>	<p>Primarily in stressed cattle in feed-lots and young nursing or orphaned calves. Respiratory complications include labored breathing, hacking cough, discharge from the nose, and possible lameness or foot rot. May cause sudden death called "thrombo".</p>
<p><b>HEMORRHAGIC SEPTICEMIA:</b> See Pneumonia, page 7.</p>	
<p><b>HORNFLY:</b> See Insecticide Chart, page 45-46.</p>	
<p><b>INFECTIOUS BOVINE RHINOTRACHEITIS</b> (IBR or Red Nose): Virus infection, complicated by bacterial invaders.</p>	<p>Excessive nasal discharge; high temperatures (108°); coughing; depression; increased respiration; muzzle may be reddened or encrusted.</p>
<p><b>INTERNAL PARASITES:</b> See Worms, page 9.</p>	
<p><b>KETOSIS:</b> Faulty carbohydrate metabolism; feeding disorders or practices.</p>	<p>Decreased milk production; loss of appetite; loss of weight; constipation; staggering gait; may walk backwards in circle or even try to climb barn; blindness; extreme nervousness; paralysis; convulsions; sweetish smell to body, milk and urine. Incidence about ten days to six weeks following calving.</p>
<p><b>LEPTOSPIROSIS:</b> An acute generalized infection or a chronic infection of the urinary &amp; reproductive tract creating economic losses. Caused by <i>Leptospira spp.</i></p>	<p>High fever, yellow tinge in eyes; depression; diarrhea; bloody urine; anemia; abortion; sudden cessation of milk flow.</p>
<p><b>LICE:</b> See Insecticide Chart, page 45-46.</p>	
<p><b>LOCKJAW:</b> See Tetanus, page 9.</p>	
<p><b>LUMPY JAW</b> (<i>Actinomyces</i>): Local infection by <i>Actinomyces bovis</i>. (See also Woody Tongue, page 9.)</p>	<p>Hard, tumor-like formations on jawbones; drainage of pus from swellings; slobbering; loosened teeth; loss of weight.</p>
<p><b>MALIGNANT EDEMA:</b> <i>Clostridium septicum</i>; wound infection.</p>	<p>High temperatures; stiffness; depression; lack of appetite; soft swellings over different parts of body that "plit" but do not "crackle" under hand pressure; sudden deaths.</p>
<p><b>MANGE</b> (Scabies, scab): See Insecticide Chart, pages 45-46.</p>	
<p><b>MASTITIS:</b> Infection of mammary gland; injuries to teats and udder a contributing factor.</p>	<p>Caked, swollen udder; hungry calf; fever.</p>
<p><b>METRITIS</b> (Uterus infection): Any number of specific or non-specific contaminating microorganisms.</p>	<p>Brownish or blood-tinged, sometimes foul-smelling discharge from the vulva; fever; depression; poor appetite; arched back; straining.</p>

\*Product listings and information, pages 54 thru 82.



# BEEF COW/CALF HEALTH PROBLEMS

PREVENTION*	TREATMENT*
<b>BAR SOMNUS</b> <b>BAR SOMNUS-2P</b> <b>IBR VACCINE COMBINATION</b> w/ <b>BAR SOMNUS-2P</b> <b>BAR-2 SOMNUS</b> <b>BAR-4® SOMNUS</b> <b>Bar-Vac®-7/SOMNUS</b>	<b>OXYTETRACYCLINE</b> <b>PENICILLIN</b> <b>ANCOSUL</b>
<b>IBR VACCINE COMBINATION</b> <b>OF CHOICE</b> <b>BAR-4®</b> <b>BAR-2 SOMNUS</b> <b>BAR-4® SOMNUS</b>	<b>BO-BAC 2X</b> <b>ANCOSUL PRODUCTS</b> <b>ISOLITE</b> <b>OXY-TET 50 or 100</b>
<b>KETOSIS CURE</b>	<b>KETOSIS CURE</b> <b>DEXTROSE SOLUTION 50%</b> <b>AMINO-LITE PRODUCTS</b>
<b>LEPTO-5</b> <b>VIBRIO-LEPTO-5</b> <b>LEPTOCON</b>	<b>OXY-TET. 50 or 100 injection</b> <b>COMBINATION ANTIBIOTIC</b>
<b>ANCHO-DINE</b>	<b>SODIUM IODIDE 20% I.V.</b>
<b>Bar-Vac®-7/SOMNUS or Bar-Vac®</b> <b>PRODUCTS</b>	<b>5,000 units penicillin per lb. every 8 to</b> <b>12 hours.</b> <b>COMBINATION ANTIBIOTIC</b>
<b>SOMATO-STAPH®</b> <b>CHAPLESS TEAT DIP</b> <b>CHAPLESS UDDER CREAM</b> <b>SULFA-UREA BOLUS</b> <b>UTERINE CARE</b>	<b>TRUE ANTIBIOTIC 10</b> <b>UDDERMATE</b> <b>ANCOSUL 40% INJECTABLE or BOLUSES</b> <b>UTERINE CARE</b> <b>OXY-TET 50 or OXY-TET 100</b>

CONDITION	SYMPTOMS
<p><b>MILK FEVER:</b> (Parturient paralysis): Imbalance of blood calcium, blood sugars and sometimes magnesium.</p>	<p>Paralysis occurring shortly after calving; depression; collapse; unconsciousness; head turned back, with neck bowed; spasms of neck muscles. Untreated animal may die.</p>
<p><b>NAVEL ILL</b> (Navel Infection): Caused by bacterial infection of navel; infection may proceed through bloodstream to liver, lungs, joints, etc.; often causes death.</p>	<p>Found in all farm animals 5-10 days after birth. Fever, depression, and reluctance to move around, even to suck; usually a lump around navel; occasional lameness.</p>
<p><b>PINKEYE</b> (Keratitis): Bacterial and/or virus infection associated with eye irritations and injuries such as flies and other insects, sun glare, snow glare, weed pollen, sand, dirt or sharp-awned grasses.</p>	<p>Swelling and redness of eyelids; free-flowing tears; avoidance of strong light; cloudiness and opacity of cornea; corneal ulcers. If unchecked, blindness may occur.</p>
<p><b>PI<sub>3</sub></b> (Parainfluenza-3 Viral Infection): Of little consequence itself, but it opens the door for secondary bacterial invasion and pneumonia. A part of the Bovine Respiratory Disease (BRD) or "shipping fever" complex.</p>	<p>Runny eyes; nasal discharges; lung congestion; coughing; dehydration; dry scabs on muzzle.</p>
<p><b>PNEUMONIA</b> (Shipping Fever/Hemorrhagic Septicemia): Initial infection considered to be caused by virus or viruses, including PI<sub>3</sub>, IBR, and/or BVD; complicated by bacterial infection, particularly <i>Haemophilus somnus</i>, <i>Pasteurella multocida</i> and/or <i>Pasteurella haemolytica</i>. Predisposing causes are exhaustion, stress, and sudden changes in weather or temperature.</p>	<p>High temperature; loss of appetite; difficult and rapid breathing; respiratory distress; coughing; nasal discharge; muscular trembling; dehydration.</p>
<p><b>REDNOSE:</b> See Infectious Bovine Rhinotracheitis, page 5.</p>	<p>High fever; depression; sudden deaths; profuse passage of dark red urine; bloody diarrhea; death follows appearance of symptoms in 24-36 hours.</p>
<p><b>REDWATER DISEASE</b> (Bacillary Hemoglobinuria): <i>Clostridium hemolyticum</i>.</p>	<p>Usually appears in the vicinity of the eyes and ears, or the base of the tail; hair disappears; mild itching noted.</p>
<p><b>RINGWORM:</b> A fungus infection of the skin.</p>	<p>Usually appears in the vicinity of the eyes and ears, or the base of the tail; hair disappears; mild itching noted.</p>
<p><b>SCOURS:</b> See Diarrhea and Calf Scours.</p>	<p>Labored breathing; drop in temperature, muscular weakness; convulsions; collapse with death following.</p>
<p><b>SHIPPING FEVER:</b> See Pneumonia.</p>	<p>Labored breathing; drop in temperature, muscular weakness; convulsions; collapse with death following.</p>
<p><b>SHOCK, ANAPHYLACTIC</b> (Serum Sickness): Sensitivity to injections of foreign materials, serums, vaccines, bacterins, and possibly other medicines or proteins.</p>	<p>Labored breathing; drop in temperature, muscular weakness; convulsions; collapse with death following.</p>
<p><b>STRESS:</b> Environmental conditions such as temperature extremes, sudden changes in weather, or crowding.</p>	<p>Lowering in productive performance; nervousness.</p>

\*Product listings and information, pages 54 thru 82.



# BEEF COW/CALF HEALTH PROBLEMS

PREVENTION*	TREATMENT*
Maintain Ca:P ratio of 1:1 during dry period.	CALDEX MPK CALDEX MP AMINO-LITE PRODUCTS
GENTLE IODINE SPRAY BO-BAC 2X	OXY-TET 50 or OXY-TET 100 ANCOSUL PRODUCTS
BAR-4® VITAMIN A-D-500 FLIP TOP DUST BAG VITAMIN A-D-B <sub>12</sub> INJECTABLE Control face flies. See Insecticide Chart, page 45-46.	VITAMIN A-D-500 OXY-TET 50 or OXY-TET 100 PINKEYE-LID
PI <sub>3</sub> VACCINE COMBINATION OF CHOICE BO-BAC 2X BAR-4®	BO-BAC 2X OXY-TET 50 or OXY-TET 100 ANCOSUL PRODUCTS
BO-BAC 2X BAR SOMNUS BAR-Vac® CSP VITAMIN A-D-500 IBR-BVD-PI <sub>3</sub> VACCINE Comb. of Choice BAR SOMNUS-2P BAR-4® BAR-2 SOMNUS BAR-4® SOMNUS	OXY-TET 50 or OXY-TET 100 ANCOSUL PRODUCTS BO-BAC 2X ISOLITE AMINO-LITE PRODUCTS
BAR-Vac®-H	PROCAINE PENICILLIN (AQUEOUS) COMBINATION ANTIBIOTIC
ANCHO-DINE	GENTLE IODINE SPRAY SODIUM IODIDE 20%
	EPINEPHRINE INJECTION U.S.P.
Management HYDRO-LITE FEED-MATE Calf/Veal	AMINO-LITE PRODUCTS HYDRO-LITE DEXTROSE SOLUTION 50%

CONDITION	SYMPTOMS
<p><b>TETANUS (Lockjaw):</b> Infection of deep or penetrating wounds or injured tissues by <i>Clostridium tetani</i>.</p>	<p>Localized stiffness progressing to prolonged contraction of muscles; jaw muscles become extremely rigid; excitability; walking, turning or backing are difficult; spasms of neck and back muscles cause extension of head and neck. Temperature may reach as high as 108° or 110°F.</p>
<p><b>VIBRIOSIS:</b> A bovine venereal disease caused by <i>Vibrio fetus</i>. It is highly contagious and spreads readily during breeding.</p>	<p>Females demonstrate reduced fertility, delayed conception, chronically infected reproductive tracts; occasionally, pregnant animals will abort. Bulls can harbor organism and still mate normally, thus spreading disease.</p>
<p><b>VITAMIN DEFICIENCY:</b> An insufficient intake of nutrients. Certain organic substances are essential for health and life. Symptoms of vitamin deficiency vary according to the vitamin which is deficient. See below.</p>	<p>Early symptoms characterized by reduced feed intake, slow gains, rough coat, watery red eyes, nasal discharge and edema. Symptoms progress to include diarrhea, convulsions, staggering and swollen joints.</p>
<p><b>VITAMIN A DEFICIENCY:</b> Night blindness or inability to see well in a dim light. As the deficiency becomes more pronounced, the eyelids become inflamed and swollen, and a watery exudate continually flows from the eyes. In later stages the eyelids swell shut. (The condition is not to be confused with Pinkeye.) If the deficiency is sufficiently prolonged and severe, permanent blindness may be expected. The affected animals are unthrifty and the feed intake is greatly reduced. Watery, swollen joints have been reported in cattle; pneumonia and scours in calves.</p>	
<p><b>VITAMIN B COMPLEX DEFICIENCY:</b> Lack of appetite; unthrifty appearance. May be among the causes of the deformities occurring in Acorn Calves.</p>	
<p><b>VITAMIN B<sub>1</sub> DEFICIENCY:</b> Seldom found in farm animals, even though the requirements for this vitamin are very high for reproduction and lactation. May occur in pre-ruminant calves.</p>	
<p><b>VITAMIN B<sub>12</sub> DEFICIENCY:</b> Caused by inability to synthesize adequate requirements due to stress or restricted diet. Lack of appetite; unthrifty appearance.</p>	
<p><b>VITAMIN C DEFICIENCY:</b> Occurs often in mild form, but never develops into scurvy in farm animals since they do not require much ascorbic acid. It is noteworthy that certain types of sterility and lowered fertility in livestock may be related to Vitamin C deficiency.</p>	
<p><b>WHITE SCOURS:</b> See Calf Scours, page 3.</p>	
<p><b>WOODY TONGUE (Actinobacillosis):</b> Local infection by <i>Actinobacillus lignieresii</i>.</p>	<p>Hard swelling of tongue or throat area; protrusion of tongue; slobbering; inability to eat or swallow; loss of weight and condition. May also infect lymph glands.</p>
<p><b>WORMS (Internal Parasites):</b></p>	<p>Poor condition; general unthriftiness; emaciation; anemia.</p>
<p><b>WOUNDS:</b> Injuries in which the skin or any other body tissue is broken; wound infections cause great losses annually; all are potential killers.</p>	

\*Product listings and information, pages 54 thru 82.

# BEEF COW/CALF HEALTH PROBLEMS

PREVENTION*	TREATMENT*
<b>TETANUS ANTITOXIN</b> <b>Bar-Vac® CD/T</b>	<b>TETANUS ANTITOXIN</b>
<b>VIBRIO-LEPTO-5</b> <b>VIBRIO-3®</b>	<b>VIBRIO-LEPTO-5</b> <b>VIBRIO-3®</b>
<b>ANCHOR VITAMIN PRODUCTS</b> <b>FEED-MATE RUMINANT</b> <b>FEED-MATE Calf/Veal</b> <b>CALF &amp; PIG SCOUR POWDER</b>	<b>AMINO-LITE PRODUCTS</b> <b>CALF &amp; PIG SCOUR POWDER</b> <b>VITAMIN A-D-500</b> <b>VITAMIN A-D-B<sub>12</sub></b> <b>VITAMIN B<sub>12</sub></b> <b>(Cyanocobalamin Injection)</b> <b>VITAMIN B<sub>12</sub></b> <b>(Hydroxocobalamin Injection)</b> <b>VITAMIN E Injection</b>
<b>ANCHO-DINE</b>	<b>OXY-TET 50 or OXY-TET 100</b> <b>ANCHO-DINE</b> <b>SODIUM IODIDE 20%</b> <b>ANCOSUL PRODUCTS</b>
<b>DISINFECTANT, GENERAL</b> <b>GENTLE IODINE SPRAY</b> <b>CHAPLESS TEAT DIP</b> <b>CHAPLESS UDDER CREAM</b>	<b>GENTLE IODINE SPRAY</b> <b>OXY-TET 50 or OXY-TET 100 (Infections)</b> <b>BLUE LOTION SPRAY</b>

# FEEDLOT HEALTH PROBLEMS

CONDITION	SYMPTOMS
<b>ANAPHYLAXIS:</b> See Shock, Anaphylactic, page 15.	
<b>ANAPLASMOSIS:</b> <i>Anaplasma marginale</i> . Spread by blood-sucking insects, unclean surgical and vaccination procedures.	Elevated temperature (103°-107°); yellowish membranes; depression; constipation; rough hair coats; anemia in advanced cases; jaundice; extreme weakness and unsteady gait.
<b>ANTHRAX:</b> <i>Bacillus anthracis</i> .	Sudden deaths in herd; excitement followed by depression, stupor, spasms, staggering; rapid respiration; high temperature (107°); bloody discharge from body openings; swellings on various parts of body.
<b>BACILLARY HEMOGLOBINURIA:</b> See Redwater Disease, page 15.	
<b>BLACK DISEASE:</b> <i>Clostridium novyi</i> . Infectious Necrotic Hepatitis.	See symptoms for Blackleg and Malignant Edema.
<b>BLACKLEG:</b> <i>Clostridium chauvoei</i> .	Primarily in cattle 6-24 months old. Sudden deaths in young cattle; lameness; gaseous swellings beneath skin of shoulder, hip, breast, back of flank, which "crackle" when pressed with hand; depression; complete lack of appetite; course of disease so rapid, symptoms may not be noticed.
<b>BLOAT:</b> Fermentation of foods (forage crops) forming large quantities of gas in the rumen.	Rapid bloating.
<b>BOVINE RESPIRATORY DISEASE (BRD):</b> See Pneumonia, page 15.	
<b>BVD:</b> See Diarrhea, Bovine Virus.	
<b>CALF DIPHTHERIA:</b> Infection by <i>Fusobacterium necrophorum</i> . Same organism involved in foot rot, navel ill.	Depression; drooling of saliva; refusal of feed; coughing; yellowish discharge from nostrils; ulcers in mouth and tongue, with cheesy scabs; foul breath; difficult breathing with gasping and coughing.
<b>CASTRATION (Infection)</b>	
<b>COCCIDIOSIS:</b> Ingestion of coccidia.	Primarily in calves 3 weeks to 6 months old. Profuse diarrhea, blood tinged; in severe cases pure blood may be passed.
<b>DEHORNING (Infection, hemorrhage, maggots).</b>	
<b>DEHYDRATION:</b> Stress conditions due to shipping, irregular feeding and watering, weaning, dehorning, castration, prolonged fever, diarrhea.	May be a cause of lowered resistance resulting in a viral or bacterial infection; or, may be an aftermath of disease condition.

\*Product listings and information, pages 54 thru 82.





PREVENTION*	TREATMENT*
Control insects and external parasites. See Insecticide Chart, page 45-46. Consult your veterinarian.	Oxytetracycline I.V. by veterinary prescription.
Consult your veterinarian.	Oxytetracycline I.V. or massive doses of penicillin given early in the course of the disease. Consult your veterinarian.
Bar-Vac <sup>®</sup> -7/SOMNUS or Bar-Vac <sup>®</sup> PRODUCTS	None
Bar-Vac <sup>®</sup> -7/SOMNUS or Bar-Vac <sup>®</sup> PRODUCTS	5,000 units penicillin per lb. body wt. every 8 to 12 hours.
	STOMACH TUBE TROCAR
ANCHO-DINE	ANCOSUL PRODUCTS OXY-TET 50 or OXY-TET 100 TRIPLE SULFA PRODUCTS
DISINFECTANT, GENERAL SCREW WORM & EAR TICK SPRAY GENTLE IODINE SPRAY	OXY-TET 50 or OXY-TET 100 COMBINATION ANTIBIOTIC TRI-SULFA PRODUCTS GENTLE IODINE SPRAY
SCREW WORM & EAR TICK SPRAY	BLOOD STOPPER SCREW WORM & EAR TICK SPRAY
HYDRO-LITE ISOLITE FEED-MATE Calf/Veal	AMINO-LITE PRODUCTS ISOLITE HYDRO-LITE FEED-MATE Calf/Veal

CONDITION	SYMPTOMS
<b>DIARRHEA, BOVINE VIRUS (BVD):</b> Virus infection of digestive and/or respiratory system.	High temperatures; nasal discharge; poor appetite; respiratory symptoms; watery, slate-colored or yellowish diarrhea.
<b>DYSENTERY:</b> See Diarrhea, above, and Scours, page 15.	
<b>EAR TICKS:</b> See Insecticide Chart, page 45-46.	
<b>ENTEROTOXEMIA:</b> Considered due to <i>Clostridium perfringens</i> Type C and/or Type D organisms. Cattle on high concentrate rations generally involved.	Sudden deaths; staggering gait; convulsions; dullness; grinding of teeth; coma.
<b>EXTERNAL PARASITES:</b> See Insecticide Chart, pages 45-46.	
<b>FACE FLY:</b> See Insecticide Chart, pages 45-46.	
<b>FOOT ROT:</b> <i>Fusobacterium necrophorum</i> and <i>Fusiformis nodosus</i> together in cattle.	Lameness; infection between claws, swelling of foot or area just above hoof; foul odor.
<b>GRUBS (Warbles):</b> Larvae of heel fly. See Insecticide Chart, page 45-46.	
<b>HAEMOPHILUS SOMNUS COMPLEX:</b> A major contributing factor to Bovine Respiratory Disease (BRD); associated with IBR, BVD, PI <sub>8</sub> complex and Pasteurella multocida-haemolytica.	Three forms of the disease include respiratory, septicemic, and reproduction disorders. Signs include pneumonia, hacking cough, sudden death, foot rot, joint swelling, abortion, infertility, vaginitis. All classes of beef and dairy cattle are affected.
<b>HEMORRHAGIC SEPTICEMIA:</b> See Pneumonia, page 15.	
<b>HORNFLY:</b> See Insecticide Chart, pages 45-46.	
<b>INFECTIOUS BOVINE RHINOTRACHEITIS (IBR or Red Nose):</b> Virus infection, complicated by bacterial invaders.	Excessive nasal discharge; high temperatures (108°); coughing; depression; increased respiration; muzzle may be reddened or encrusted.
<b>INTERNAL PARASITES:</b> See Worms, page 17.	
<b>LEPTOSPIROSIS:</b> An acute generalized infection or a chronic infection of the urinary & reproductive tract creating economic losses. Caused by <i>Leptospira</i> spp.	High fever, yellow tinge in eyes; depression; diarrhea; bloody urine; anemia; abortion; sudden cessation of milk flow.
<b>LICE:</b> See Insecticide Chart, page 45-46.	
<b>LOCKJAW:</b> See Tetanus, page 17.	
<b>LUMPY JAW (Actinomycosis):</b> Local infection by <i>Actinomyces bovis</i> . (See also Woody Tongue, page 17).	Hard, tumor-like formations on jawbones; drainage of pus from swellings; slobbering; loosened teeth; loss of weight.

\*Product listings and information, pages 54 thru 82.

# FEEDLOT HEALTH PROBLEMS

PREVENTION*	TREATMENT*
BVD VACCINE COMBINATION OF CHOICE	BO-BAC 2X AMINO-LITE HYDRO-LITE ISOLITE
C & D TOXOID FEED-MATE PRODUCTS Bar-Vac® CD/T C & D ANTITOXIN	C & D ANTITOXIN
ANCHO-DINE	ANCHO-DINE ANCOSUL PRODUCTS OXY-TET 50 or OXY-TET 100 TRIPLE SULFA PRODUCTS COMBINATION ANTIBIOTIC
BAR SOMNUS BAR SOMNUS-2P IBR-BVD-PI <sub>3</sub> VACCINE COMBINATION w/BAR SOMNUS-2P BAR-2 SOMNUS BAR-4® SOMNUS Bar-Vac®-7/SOMNUS	OXYTETRACYCLINE PENICILLIN
IBR VACCINE COMBINATION OF CHOICE BAR-4® BAR-2 SOMNUS BAR-4® SOMNUS	BO-BAC 2X ANCOSUL PRODUCTS ISOLITE TRIPLE SULFA PRODUCTS OXY-TET 50 or 100
LEPTO-5 VIBRIO-LEPTO-5	OXY-TET 50 or OXY-TET 100 COMBINATION ANTIBIOTIC
ANCHO-DINE	SODIUM IODIDE 20%, I.V.

CONDITION	SYMPTOMS
<b>MALIGNANT EDEMA:</b> <i>Clostridium septicum</i> ; wound infection.	High temperatures; stiffness; depression; lack of appetite; soft swellings over different parts of body that "pit" but do not "crackle" under hand pressure; sudden deaths.
<b>MANGE</b> (Scabies, scab): See Insecticide Chart, page 45-46.	
<b>PINKEYE</b> (Keratitis): Bacterial and/or virus infection associated with eye irritations and injuries such as flies and other insects, sun glare, snow glare, weed pollen, sand, dirt or sharp-awned grasses.	Swelling and redness of eyelids; free-flowing tears; avoidance of strong light; cloudiness and opacity of cornea; corneal ulcers. If unchecked, blindness may occur.
<b>PI<sub>3</sub></b> (Parainfluenza-3 Viral Infection): Of little consequence itself, but it opens the door for secondary bacterial invasion and pneumonia. A part of the Bovine Respiratory Disease (BRD) or "shipping fever" complex.	Runny eyes; nasal discharges; lung congestion; coughing; dehydration; dry scabs on muzzle.
<b>PNEUMONIA</b> (Shipping Fever/Hemorrhagic Septicemia): Initial infection considered to be caused by virus or viruses, including PI <sub>3</sub> , IBR, and/or BVD; complicated by bacterial infection, particularly <i>Haemophilus somnus</i> , <i>Pasteurella multocida</i> and/or <i>Pasteurella haemolytica</i> ; predisposing causes are exhaustion, stress, and sudden changes in weather or temperature.	High temperature; loss of appetite; difficult and rapid breathing; respiratory distress; coughing; nasal discharge; muscular trembling; dehydration.
<b>REDNOSE:</b> See Infectious Bovine Rhinotracheitis, page 13.	
<b>REDWATER DISEASE</b> (Bacillary Hemoglobinuria): <i>Clostridium hemolyticum</i> .	High fever; depression; sudden deaths; profuse passage of dark red urine; bloody diarrhea; death follows appearance of symptoms in 24-36 hours.
<b>RINGWORM:</b> A fungus infection of the skin.	Usually appears in the vicinity of the eyes and ears, or the base of the tail; hair disappears; mild itching noted.
<b>SCOURS:</b> Also see Diarrhea, page 13.	Loose or liquid stools, varying degrees of fever and disability.
<b>SHIPPING FEVER:</b> See Pneumonia.	
<b>SHOCK, ANAPHYLACTIC</b> (Serum Sickness): Sensitivity to injections of foreign materials, serums, vaccines, bacterins, and possibly other medicines or proteins.	Labored breathing; drop in temperature, muscular weakness; convulsions; collapse with death following.
<b>STRESS:</b> Environmental conditions such as temperature extremes, sudden changes in weather, or crowding.	Lowering in productive performance; nervousness.

\*Product listings and information, pages 54 thru 82.



## FEEDLOT HEALTH PROBLEMS

PREVENTION*	TREATMENT*
<b>BAR-Vac-7®/SOMNUS or BAR-Vac®</b> <b>PRODUCTS</b>	5,000 units penicillin per lb. every 8-12 hours. <b>COMBINATION ANTIBIOTIC</b>
<b>BAR-4®</b> <b>VITAMIN A-D-500</b> <b>FLIP TOP DUST BAG</b> <b>VITAMIN A-D-B<sub>12</sub> INJECTABLE</b> Control face files; see page 45-46.	<b>VITAMIN A-D-500</b> <b>OXY-TET 50 or OXY-TET 100</b> <b>PINKEYE-LID</b>
<b>PI<sub>3</sub> VACCINE COMBINATION</b> <b>OF CHOICE</b> <b>BO-BAC 2X</b> <b>BAR-4®</b> <b>BAR-2 SOMNUS</b> <b>BAR-4® SOMNUS</b>	<b>BO-BAC 2X</b> <b>OXY-TET 50 or OXY-TET 100</b> <b>ANCOSUL PRODUCTS</b>
<b>IBR-BVD-PI<sub>3</sub> VACCINE COMBINATION</b> <b>OF CHOICE</b> <b>BAR-SOMNUS-2P</b> <b>BO-BAC 2X</b> <b>BAR-Vac®-CSP</b> <b>VITAMIN A-D-500</b> <b>BAR-4®</b> <b>BAR SOMNUS</b> <b>BAR-2 SOMNUS</b> <b>BAR-4® SOMNUS</b>	<b>OXY-TET 50 or OXY-TET 100</b> <b>ANCOSUL PRODUCTS</b> <b>BO-BAC 2X</b> <b>ISOLITE</b> <b>AMINO-LITE PRODUCTS</b> <b>TRIPLE SULFA PRODUCTS</b>
<b>BAR-Vac®-H</b>	<b>PROCAINE PENICILLIN (AQUEOUS)</b> <b>COMBINATION ANTIBIOTIC</b>
<b>Isolate infected cases</b> <b>ANCHO-DINE</b> <b>VITAMIN A-D-E PREMIX</b> <b>FEED-MATE RUMINANT or Calf/Veal</b>	<b>GENTLE IODINE SPRAY</b> <b>SODIUM IODIDE 20%</b>
<b>ISOLITE</b> <b>CALF SCOUR POWDER</b> <b>VITAMIN A-D-500</b> <b>FEED-MATE PRODUCTS</b>	<b>OXY-TET 50 or OXY-TET 100</b> <b>ISOLITE</b> <b>ANCOSUL PRODUCTS</b>
<b>Management</b> <b>HYDRO-LITE</b> <b>AMINO-LITE PRODUCTS</b> <b>FEED-MATE Calf/Veal</b>	<b>EPINEPHRINE INJECTION U.S.P.</b>
	<b>AMINO-LITE PRODUCTS,</b> <b>DEXTROSE SOLUTION 50%</b> <b>HYDRO-LITE</b>

CONDITION	SYMPTOMS
<p><b>TETANUS (Lockjaw):</b> Infection of deep or penetrating wounds or injured tissues by <i>Clostridium tetani</i>.</p> <p><b>VITAMIN DEFICIENCY:</b> An insufficient intake of nutrients. Certain organic substances are essential for health and life. Symptoms of vitamin deficiency vary according to the vitamin which is deficient. See below.</p>	<p>Localized stiffness progressing to prolonged contraction of muscles; jaw muscles become extremely rigid; excitability; walking, turning or backing are difficult; spasms of neck and back muscles cause extension of head and neck. Temperature may reach as high as 108° or 110°F.</p> <p>Early symptoms characterized by reduced feed intake, slow gains, rough coat, watery red eyes, nasal discharge and edema. Symptoms progress to include diarrhea, convulsions, staggering and swollen joints.</p>
<p><b>VITAMIN A DEFICIENCY:</b> Night blindness or inability to see well in a dim light. As the deficiency becomes more pronounced, the eyelids become inflamed and swollen, and a watery exudate continually flows from the eyes. In later stages the eyelids swell shut. (The condition is not to be confused with Pinkeye.) If the deficiency is sufficiently prolonged and severe, permanent blindness may be expected. The affected animals are unthrifty and the feed intake is greatly reduced. Watery, swollen joints have been reported in cattle; pneumonia and scours in calves.</p>	
<p><b>VITAMIN B COMPLEX DEFICIENCY:</b> Lack of appetite; unthrifty appearance. May be among the causes of the deformities occurring in Acorn Calves.</p>	
<p><b>VITAMIN B<sub>1</sub> DEFICIENCY:</b> Seldom found in farm animals, even though the requirements for this vitamin are very high for reproduction and lactation.</p>	
<p><b>VITAMIN B<sub>12</sub> DEFICIENCY:</b> Caused by inability to synthesize adequate requirements due to stress or restricted diet. Lack of appetite; unthrifty appearance.</p>	
<p><b>VITAMIN C DEFICIENCY:</b> Occurs often in mild form, but never develops into scurvy in farm animals since they do not require much ascorbic acid. It is noteworthy that certain types of sterility and lowered fertility in livestock are due to Vitamin C deficiency.</p>	
<p><b>WARTS:</b> Virus.</p>	<p>Cauliflower-like tumors.</p>
<p><b>WOODY TONGUE:</b> (Actinobacillosis): Local infection by <i>Actinobacillus lignieresii</i>.</p>	<p>Hard swelling of tongue or throat area; protrusion of tongue; slobbering; inability to eat or swallow; loss of weight and condition. May also infect lymph glands.</p>
<p><b>WORMS (Internal Parasites):</b></p>	
<p><b>WOUNDS:</b> Injuries in which the skin or any other body tissue is broken; wound infections cause great losses annually; all are potential killers.</p>	<p>Poor condition; general unthriftiness; emaciation; anemia.</p>

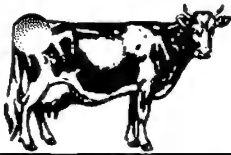
\*Product listings and information, pages 54 thru 82.

# FEEDLOT HEALTH PROBLEMS

PREVENTION*	TREATMENT*
<p>TETANUS ANTITOXIN            Bar-Vac® CD/T</p> <p>ANCHOR VITAMIN PRODUCTS            FEED-MATE Calf/Veal            FEED-MATE RUMINANT            FEED-MATE FEED MIX</p>	<p>TETANUS ANTITOXIN</p> <p>AMINO-LITE PRODUCTS            VITAMIN A-D-500            VITAMIN A-D-B<sub>12</sub>            VITAMIN B<sub>12</sub>            (Cyanocobalamin Injection)            VITAMIN B<sub>12</sub>            (Hydroxocobalamin Injection)            VITAMIN E</p>
<p>ANCHO-DINE</p> <p>DISINFECTANT, GENERAL            GENTLE IODINE SPRAY            CHAPLESS UDDER CREAM            CHAPLESS TEAT DIP            BLUE LOTION</p>	<p>OXY-TET 50 or OXY-TET 100            ANCHO-DINE            SODIUM IODIDE 20%            ANCOSUL PRODUCTS</p> <p>OXY-TET 50 or OXY-TET 100 (infections)            GENTLE IODINE SPRAY            BLUE LOTION SPRAY</p>

# DAIRY HEALTH PROBLEMS

CONDITION	SYMPTOMS
<b>ABORTION:</b> See Brucellosis, Anaplasmosis, Leptospirosis, BVD, IBR, and Vibriosis.	
<b>ACETONEMIA:</b> See Ketosis, page 23.	
<b>ANAPHYLAXIS:</b> See Shook, Anaphylactic, page 27. Also see page 87.	
<b>ANAPLASMOSIS:</b> <i>Anaplasma marginale</i> . Spread by blood-sucking insects, unclean surgical and vaccination procedures.	Elevated temperature (103°-107°); yellowish membranes; depression; constipation; rough hair coats; anemia in advanced cases; jaundice; extreme weakness and unsteady gait.
<b>ANTHRAX:</b> <i>Bacillus anthracis</i> .	Sudden deaths in herd; excitement followed by depression, stupor, spasms, staggering; rapid respiration; high temperature (107°); bloody discharge from body openings; swellings on various parts of body.
<b>BACILLARY HEMOGLOBINURIA:</b> See Redwater Disease, page 27.	
<b>BANG'S DISEASE:</b> See Brucellosis.	
<b>BLACK DISEASE:</b> <i>Clostridium novyi</i> . Infectious Necrotic Hepatitis.	See symptoms for Blackleg and Malignant Edema.
<b>BLACKLEG:</b> <i>Clostridium chauvoei</i> .	Primarily in cattle 6-24 months old. Sudden deaths in young cattle; lameness; gaseous swellings beneath skin of shoulder, hip, breast, back of flank, which "crackle" when pressed with hand; depression; complete lack of appetite; course of disease so rapid, symptoms may not be noticed.
<b>BLOAT:</b> Fermentation of foods (forage crops) forming large quantities of gas in the rumen.	Rapid bloating.
<b>BOVINE RESPIRATORY DISEASE (BRD):</b> See pneumonia, page 27.	
<b>BRUCELLOSIS:</b> Chronic, infectious disease transmitted through the digestive tract from contaminated food or water.	Most common during first pregnancy. Cow may abort one to three times; give birth to weaker calves; produce 25% to 30% less milk; often becomes sterile; has high percentage of retained placentas.
<b>BVD:</b> See Diarrhea, Bovine Virus, page 21.	
<b>CALF DIPHTHERIA:</b> Infection by <i>Fusobacterium necrophorum</i> . Same organism involved in foot rot, navel ill.	Depression; drooling of saliva; refusal of feed; coughing; yellowish discharge from nostrils; ulcers in mouth and tongue, with cheesy scabs; foul breath; difficult breathing with gasping and coughing.



PREVENTION*	TREATMENT*
<p>Control insects and external parasites. See Insecticide Chart, page 45-46. Consult your veterinarian.</p> <p>Consult your veterinarian.</p> <p><b>Bar-Vac ® PRODUCTS</b></p> <p><b>Bar-Vac ® PRODUCTS</b> <b>Bar-Vac ®-7/SOMNUS</b></p> <p>Consult your veterinarian.</p> <p><b>ANCHO-DINE</b></p>	<p>Oxytetracycline I.V. by veterinary prescription.</p> <p>Oxytetracycline I.V. or massive doses of penicillin given early in the course of the disease. Consult your veterinarian.</p> <p>None</p> <p>5,000 units penicillin per lb. body wt. every 8 to 12 hours.</p> <p><b>STOMACH TUBE TROCAR</b></p> <p>Consult your veterinarian.</p> <p><b>OXY-TET 50 or OXY-TET 100 ANCOSUL PRODUCTS TRIPLE SULFA PRODUCTS</b></p>



CONDITION	SYMPTOMS
<p><b>CALF PNEUMONIA:</b> Possible virus complicated with bacteria such as <i>Haemophilus somnus</i>, <i>Pasteurella multocida</i> and <i>Corynebacterium pyogenes</i>.</p>	<p>Primarily in calves 10 days to 4 months old. Typical pneumonia symptoms, labored breathing; discharges; high temperatures.</p>
<p><b>CALF SCOURS</b> (Colibacillosis or White Scours): Possible virus; various bacteria including <i>E. Coli</i>; <i>Pasteurella</i> organisms; <i>Salmonella enteritidis</i> (Gaertner).</p>	<p>Listless; dull, sunken eyes; lack of appetite; weakness; high temperature; profuse watery diarrhea; sudden deaths; pneumonia. Less severe cases may continue to eat; have thin white or yellow manure.</p>
<p><b>CASTRATION</b> (Infection)</p>	
<p><b>CHAPPED TEATS/UDDER:</b> Any irritation such as sudden chilling after sucking; wet milking; damp or filthy stable conditions; wet bedding; overstocking; exposure of tender skin to sun rays in summer; freezing in winter.</p>	<p>Skin is first rough; later wrinkles form, may become hard and deep and break into raw fissures.</p>
<p><b>COCCIDIOSIS:</b> Ingestion of coccidia.</p>	<p>Primarily in calves 3 weeks to 6 months old. Profuse diarrhea, blood tinged; in severe cases, pure blood may be passed.</p>
<p><b>COLIBACILLOSIS:</b> See Calf Scours.</p>	
<p><b>DEHORNING</b> (Infection, maggots, hemorrhage)</p>	
<p><b>DEHYDRATION:</b> Stress conditions due to shipping, irregular feeding and watering, weaning, dehorning, castration, prolonged fever, diarrhea.</p>	<p>May be a cause of lowered resistance resulting in a viral or bacterial infection; or, may be an aftermath of disease condition.</p>
<p><b>DIARRHEA, BOVINE VIRUS (BVD):</b> Virus infection of digestive and/or respiratory system.</p>	<p>High temperatures; nasal discharge; poor appetite; respiratory symptoms; watery, slate-colored or yellowish diarrhea.</p>
<p><b>DISINFECTION</b></p>	
<p><b>DYSENTERY:</b> See Diarrhea and Scours.</p>	
<p><b>EAR TICKS:</b> See Insecticide Chart, page 45-46.</p>	
<p><b>ENTEROTOXEMIA, HEMORRHAGIC:</b> <i>Clostridium perfringens</i> Type C.</p>	<p>Signs of colic; uneasiness; straining; and kicking at the abdomen. Bloody diarrhea may develop. Death usually occurs in 2 to 24 hours after first symptoms noted.</p>

\*Product listings and information, pages 54 thru 82.

# DAIRY HEALTH PROBLEMS

PREVENTION*	TREATMENT*
<b>BO-BAC 2X</b> <b>BAR SOMNUS</b> <b>BAR-SOMNUS-2P</b> <b>VITAMIN A-D-500</b> <b>VITAMIN A-D-B<sub>12</sub> INJECTABLE</b> <b>BAR-2 SOMNUS</b> <b>BAR-4<sup>th</sup> SOMNUS</b>	<b>OXY-TET 50 or OXY-TET 100</b> <b>ANCOSUL PRODUCTS</b> <b>BO-BAC 2X</b> <b>VITAMIN A-D-500</b> <b>SULMYCIN CALF SCOUR,</b> <b>PNEUMONIA BOLUS</b>
<b>CALF &amp; PIG SCOUR POWDER</b> <b>FEED-MATE Soluble or FEED MIX</b> <b>BO-BAC 2X</b> <b>GENTLE IODINE SPRAY (to navel)</b> <b>C &amp; D ANTITOXIN</b> <b>VITAMIN A-D-B<sub>12</sub> INJECTABLE</b> <b>FEED-MATE Calf/Veal</b>	<b>OXY-TET 50 or OXY-TET 100</b> <b>AMINO-LITE PRODUCTS</b> <b>ANCOSUL PRODUCTS</b> <b>CALF SCOUR BOLUS</b> <b>CALF SCOUR BUCKET MIX</b> <b>SULMYCIN CALF SCOURS,</b> <b>PNEUMONIA BOLUS</b>
<b>DISINFECTANT, GENERAL</b> <b>SCREW WORM &amp; EAR TICK SPRAY</b>	<b>OXY-TET 50 or OXY-TET 100</b> <b>GENTLE IODINE SPRAY</b> <b>TRI-SULFA PRODUCTS</b> <b>COMBINATION ANTIBIOTIC</b>
<b>CHAPLESS TEAT DIP</b> <b>CHAPLESS UDDER CREAM</b>	<b>CHAPLESS UDDER CREAM</b>
	<b>ANCOSUL PRODUCTS</b>
<b>DEHORN PASTE</b> <b>SCREW WORM &amp; EAR TICK SPRAY</b>	<b>BLOOD STOPPER</b> <b>SCREW WORM &amp; EAR TICK SPRAY</b>
<b>HYDRO-LITE</b> <b>ISOLITE</b> <b>SUL-LITE</b> <b>FEED-MATE Calf/Veal</b>	<b>AMINO-LITE PRODUCTS</b> <b>ISOLITE</b> <b>HYDRO-LITE</b>
<b>BVD VACCINE COMBINATION</b> <b>OF CHOICE</b>	<b>BO-BAC 2X</b>
<b>DISINFECTANT, GENERAL</b> <b>CHAPLESS TEAT DIP</b>	
<b>C &amp; D TOXOID</b> <b>C &amp; D ANTITOXIN</b> <b>FEED-MATE Calf/Veal</b> <b>FEED-MATE Soluble or FEED MIX</b>	<b>C &amp; D ANTITOXIN</b>

CONDITION	SYMPTOMS
<b>EXTERNAL PARASITES:</b> See Insecticide Chart, pages 45-46.	
<b>FACE FLY:</b> See Insecticide Chart, pages 45-46.	
<b>FOOT ROT:</b> <i>Fusobacterium necrophorum</i> and <i>Fusiformis nodosus</i> together in cattle.	Lameness; infection between claws; swelling of foot or area just above hoof; foul odor.
<b>GRASS TETANY:</b> Uncertain but thought to be due to low blood levels of magnesium, possibly calcium, due to grazing lush pastures.	Nervousness; muscular twitching; excitement; convulsions.
<b>GRUBS:</b> See Insecticide Chart, pages 45-46.	
<b>HAEMOPHILUS SOMNUS COMPLEX:</b> A major contributing factor to Bovine Respiratory Disease (BRD); associated with IBR, BVD, PI; complex and Pasteurella multocida-haemolytica.	Three forms of the disease include respiratory, septicemia, and reproduction disorders. Signs include pneumonia, hacking cough, sudden death, foot rot, joint swelling, abortion, infertility, vaginitis. All classes of beef and dairy cattle are affected.
<b>HEMORRHAGIC SEPTICEMIA:</b> See Pneumonia, page 27.	
<b>HORNFLY:</b> See Insecticide Chart, pages 45-46.	
<b>INFECTIOUS BOVINE RHINOTRACHEITIS (IBR or Red Nose):</b> Virus infection, complicated by bacterial invaders.	Excessive nasal discharge; high temperatures (108°); coughing; depression; increased respiration; muzzle may be reddened or encrusted.
<b>INTERNAL PARASITES:</b> See Worms, page 29.	
<b>KETOSIS:</b> Faulty carbohydrate metabolism; feeding disorders or practices.	
<b>LEPTOSPIROSIS:</b> An acute generalized infection or a chronic infection of the urinary & reproductive tract creating economic losses. Caused by <i>Leptospira</i> spp.	Decreased milk production; loss of appetite; loss of weight; constipation; staggering gait; may walk backwards. In circle or even try to climb barn; blindness; extreme nervousness; paralysis; convulsions; sweetish smell to body, milk and urine. Incidence about ten days to six weeks following calving.  High fever, yellow tinge in eyes; depression; diarrhea; bloody urine; anemia; abortion; sudden cessation of milk flow.

\*Product listings and information, pages 54 thru 82.

# DAIRY HEALTH PROBLEMS

PREVENTION*	TREATMENT*
ANCHO-DINE	ANCHO-DINE OXY-TET 50 or OXY-TET 100 ANCOSUL PRODUCTS TRIPLE SULFA PRODUCTS COMBINATION ANTIBIOTIC
RUMINANT PREMIX w/FEED-MATE	
BAR SOMNUS BAR SOMNUS-2P BAR-2 SOMNUS IBR-BVD-PI <sub>3</sub> /BAR SOMNUS 2-P BAR-4 <sup>®</sup> SOMNUS Bar-Vac <sup>®</sup> -7/SOMNUS	OXYTETRACYCLINE PENICILLIN
IBR VACCINE COMBINATION OF CHOICE BAR-4 <sup>®</sup> BAR-2 SOMNUS BAR-4 <sup>®</sup> SOMNUS	BO-BAC 2X ANCOSUL PRODUCTS ISOLITE TRIPLE SULFA PRODUCTS OXY-TET 50 or 100
KETOSIS CURE	DEXTROSE SOLUTION 50% KETOSIS CURE AMINO-LITE PRODUCTS
LEPTO-5 VIBRIO-LEPTO-5	OXY-TET 50 or OXY-TET 100 COMBINATION ANTIBIOTIC



CONDITION	SYMPTOMS
<b>LICE:</b> See Insecticide Chart, page 45-46.	Blue patches resembling dirt in folds of skin around head, neck, withers, and inner surfaces of legs. In severe infestations, noticeable weakness due to anemia caused by lice.
<b>LOCKJAW:</b> See Tetanus, page 27.	
<b>LUMPY JAW (Actinomycosis):</b> Local infection by <i>Actinomyces bovis</i> . (See also Woody Tongue, page 29).	Hard, tumor-like formations on jawbones; drainage of pus from swellings; slobbering; loosened teeth; loss of weight.
<b>MALIGNANT EDEMA:</b> <i>Clostridium septicum</i> ; wound infection.	High temperatures; stiffness; depression; lack of appetite; soft swellings over different parts of body that "pit" but do not "crackle" under hand pressure; sudden deaths.
<b>MANGE (Scabies, scab):</b> See Insecticide Chart, page 45-46.	
<b>MASTITIS (Lactating cows):</b> Infection of mammary gland with bacteria including <i>Streptococci</i> ; <i>Staphylococci</i> ; coliform organisms; <i>Corynebacterium pyogenes</i> ; <i>Pasteurella multocida</i> ; <i>Salmonella enteritidis</i> ; <i>Pseudomonas</i> ; yeasts; molds; injuries to teats and udders contributing factor.	Milk visibly changes (thick, yellow, ropy or watery); caked udder; hot, swollen udder; blood-streaked milk; elevated temperature.
<b>MASTITIS (Dry cows):</b> May occur among dry cows kept in small enclosures during a long wet period.	Swelling of one or more quarters of the udder; elevated temperature; soreness of the udder; general listlessness.
<b>METRITIS (Uterus infection):</b> Any number of specific or non-specific contaminating microorganisms.	Brownish or blood-tinged, sometimes foul-smelling discharge from the vulva; fever; depression; poor appetite; arched back; straining.
<b>MILK FEVER (Parturient paralysis):</b> Imbalance of blood calcium, blood sugars and sometimes magnesium.	Paralysis occurring shortly after calving; depression; collapse; unconsciousness; head turned back, with neck bowed; spasms of neck muscles. Untreated animal may die.
<b>NAVEL ILL (Navel Infection):</b> Caused by bacterial infection of navel; infection may proceed through bloodstream to liver, lungs, joints, etc.; often causes death.	Found in all farm animals 5-10 days after birth. Fever, depression, and reluctance to move around, even to suck; usually a lump around navel; occasional lameness.
<b>PINKEYE (Keratitis):</b> Bacterial and/or virus infection associated with eye irritations and injuries such as flies and other insects, sun glare, snow glare, weed pollen, sand, dirt or sharp-awned grasses.	Swelling and redness of eyelids; free-flowing tears; avoidance of strong light; cloudiness and opacity of cornea; corneal ulcers. If unchecked, blindness may occur.

\*Product listings and information, pages 54 thru 82.

# DAIRY HEALTH PROBLEMS

## PREVENTION\*

FLIP TOP DUST BAG  
DAIRY CATTLE DUST

ANCHO-DINE

Bar-Vac® PRODUCTS  
Bar-Vac®-7/SOMNUS

CHAPLESS TEAT DIP  
DISINFECTANT, GENERAL  
SOMATO-STAPH®  
CHAPLESS UDDER CREAM

CHAPLESS TEAT DIP  
SOMATO-STAPH®  
CHAPLESS UDDER CREAM

SULFA-UREA BOLUS  
UTERINE CARE

Maintain Ca:P ratio of 1:1 during  
dry period.

GENTLE IODINE SPRAY

BAR-4®  
VITAMIN A-D-500  
FLIP TOP DUST BAG  
VITAMIN A-D-B<sub>12</sub> INJECTABLE  
Control face flies; see Insecticide  
Chart, page 45-46.

## TREATMENT\*

DAIRY & LIVESTOCK SPRAY  
GRUB POUR-ON CATTLE INSECTICIDE  
FLY & LOUSE DUST

SODIUM IODIDE 20%, I.V.

5,000 units per lb. penicillin every 8 to  
12 hours.  
COMBINATION ANTIBIOTIC

TRUE ANTIBIOTIC 10  
UDDERMATE  
ANCOSUL PRODUCTS

DRY-MAST®  
OXY-TET 50 or 100  
ANCOSUL PRODUCTS

OXY-TET 50 or OXY-TET 100  
UTERINE CARE

CALDEX MPK  
CALDEX MP

OXY-TET 50 or OXY-TET 100  
ANCOSUL PRODUCTS

VITAMIN A-D-500  
OXY-TET 50

CONDITION	SYMPTOMS
<p><b>PI<sub>3</sub></b> (Parainfluenza-3 Viral Infection): Of little consequence itself, but it opens the door for secondary bacterial invasion and pneumonia. A part of the Bovine Respiratory Disease (BRD) or "shipping fever" complex.</p>	<p>Runny eyes; nasal discharges; lung congestion; coughing; dehydration; dry scabs on muzzle.</p>
<p><b>PNEUMONIA</b> (Shipping Fever/Hemorrhagic Septicemia): Initial infection considered to be caused by virus or viruses, including PI<sub>3</sub>, IBR, and/or BVD; complicated by bacterial infection, particularly <i>Haemophilus somnus</i>, <i>Pasteurella multocida</i> and/or <i>Pasteurella haemolytica</i>; predisposing causes are exhaustion, stress, and sudden changes in weather or temperature.</p>	<p>High temperature; loss of appetite; difficult and rapid breathing; respiratory distress; coughing; nasal discharge; muscular trembling; dehydration.</p>
<p><b>REDNOSE:</b> See Infectious Bovine Rhinotracheitis, page 23.</p>	
<p><b>REDWATER DISEASE</b> (Bacillary Hemoglobinuria): <i>Clostridium hemolyticum</i>.</p>	<p>High fever; depression; sudden death; profuse passage of dark red urine; bloody diarrhea; death follows appearance of symptoms in 24-36 hours.</p>
<p><b>RINGWORM:</b> A fungus infection of the skin.</p>	<p>Usually appears in the vicinity of the eyes and ears, or the base of the tail; hair disappears; mild itching noted.</p>
<p><b>SANITATION:</b></p>	
<p><b>SCOURS:</b> See Diarrhea and Calf Scours, page 21.</p>	
<p><b>SHIPPING FEVER:</b> See Pneumonia.</p>	
<p><b>SHOCK, ANAPHYLACTIC</b> (Serum Sickness): Sensitivity to injections of foreign materials, serums, vaccines, bacterins, and possibly other medicines or proteins.</p>	<p>Labored breathing; drop in temperature, muscular weakness; convulsions; collapse with death following.</p>
<p><b>STRESS:</b> Environmental conditions such as temperature extremes, sudden changes in weather, or crowding.</p>	<p>Lowering in productive performance; nervousness.</p>
<p><b>TETANUS</b> (Lockjaw): Infection of deep or penetrating wounds or injured tissues by <i>Clostridium tetani</i>.</p>	<p>Localized stiffness progressing to prolonged contraction of muscles; jaw muscles become extremely rigid; excitability; walking, turning or backing are difficult; spasms of neck and back muscles cause extension of head and neck. Temperature may reach as high as 108° or 110°F.</p>

\*Product listings and information, pages 54 thru 82.



# DAIRY HEALTH PROBLEMS

PREVENTION*	TREATMENT*
<b>PI<sub>3</sub> VACCINE COMBINATION OF CHOICE</b> <b>BO-BAC 2X</b> <b>BAR-4®</b> <b>BAR-2 SOMNUS</b> <b>BAR-4® SOMNUS</b>	<b>BO-BAC 2X</b> <b>OXY-TET 50 or OXY-TET 100</b> <b>ANCOSUL PRODUCTS</b>
<b>IBR-BVD-PI<sub>3</sub> VACCINE COMBINATION OF CHOICE</b> <b>BAR SOMNUS-2P</b> <b>BO-BAC 2X</b> <b>Bar-Vac® CSP</b> <b>VITAMIN A-D-500</b> <b>BAR-4®</b> <b>BAR SOMNUS</b> <b>BAR-2 SOMNUS</b> <b>BAR-4® SOMNUS</b>	<b>OXY-TET 50 or OXY-TET 100</b> <b>ANCOSUL PRODUCTS</b> <b>BO-BAC 2X</b> <b>ISOLITE</b> <b>AMINO-LITE PRODUCTS</b>
<b>Bar-Vac® N-H</b>	<b>PROCAINE PENICILLIN (AQUEOUS) COMBINATION ANTIBIOTIC</b>
<b>ANCHO-DINE</b>	<b>SODIUM IODIDE 20%</b> <b>GENTLE IODINE SPRAY</b>
<b>DISINFECTANT, GENERAL</b> <b>CHAPLESS TEAT DIP</b>	
	<b>EPINEPHRINE</b> <b>INJECTION U.S.P.</b>
<b>Management</b> <b>HYDRO-LITE</b> <b>FEED-MATE Soluble or FEED MIX</b>	<b>AMINO-LITE PRODUCTS</b> <b>HYDRO-LITE</b> <b>DEXTRORSE SOLUTION 50%</b> <b>FEED-MATE Calf/Veal</b>
<b>TETANUS ANTITOXIN</b> <b>Bar-Vac® CD/T</b>	<b>TETANUS ANTITOXIN</b>

CONDITION	SYMPTOMS
<p><b>VIBRIOSIS:</b> A bovine venereal disease caused by <i>Vibrio fetus</i>. It is highly contagious and spreads readily during breeding.</p> <p><b>VITAMIN DEFICIENCY:</b> An insufficient intake of nutrients. Certain organic substances are essential for health and life. Symptoms of vitamin deficiency vary according to the vitamin which is deficient. See below.</p>	<p>Females demonstrate reduced fertility, delayed conception, chronically infected reproductive tracts; occasionally, pregnant animals will abort. Bulls can harbor organism and still mate normally, thus spreading disease.</p> <p>Early symptoms characterized by reduced feed intake, slow gains, rough coat, watery red eyes, nasal discharge and edema. Symptoms progress to include diarrhea, convulsions, staggering and swollen joints.</p>
<p><b>VITAMIN A DEFICIENCY:</b> Night blindness or inability to see well in a dim light. As the deficiency becomes more pronounced, the eyelids become inflamed and swollen, and a watery exudate continually flows from the eyes. In later stages the eyelids swell shut. (The condition is not to be confused with Pinkeye.) If the deficiency is sufficiently prolonged and severe, permanent blindness may be expected. The affected animals are unthrifty and the feed intake is greatly reduced. Watery, swollen joints have been reported in cattle; pneumonia and scours in calves.</p>	
<p><b>VITAMIN B COMPLEX DEFICIENCY:</b> Lack of appetite; unthrifty appearance. May be among the causes of the deformities occurring in Acorn Calves.</p>	
<p><b>VITAMIN B<sub>1</sub> DEFICIENCY:</b> Seldom found in farm animals, even though the requirements for this vitamin are very high for reproduction and lactation. May occur in pre-ruminant calves.</p>	
<p><b>VITAMIN B<sub>12</sub> DEFICIENCY:</b> Caused by inability to synthesize adequate requirements due to stress or restricted diet. Lack of appetite; unthrifty appearance.</p>	
<p><b>VITAMIN C DEFICIENCY:</b> Occurs often in mild form, but never develops into scurvy in farm animals since they do not require much ascorbic acid. It is noteworthy that certain types of sterility and lowered fertility in livestock are due to Vitamin C deficiency.</p>	
<p><b>WHITE SCOURS:</b> See Calf Scours, page 21.</p>	
<p><b>WOODY TONGUE (Actinobacillosis):</b> Local infection by <i>Actinobacillus lignieresii</i>.</p>	<p>Hard swelling of tongue or throat area; protrusion of tongue; slobbering; inability to eat or swallow; loss of weight and condition. May also infect lymph glands.</p>
<p><b>WORMS (Internal Parasites):</b></p>	<p>Poor condition; general unthriftiness; emaciation; anemia.</p>
<p><b>WOUNDS:</b> Injuries in which the skin or any other body tissue is broken; wound infections cause great losses annually; all are potential killers.</p>	

\*Product listings and information, pages 54 thru 82.

## DAIRY HEALTH PROBLEMS

PREVENTION*	TREATMENT*
<b>VIBRIO-LEPTO-5</b> <b>VIBRIO-3®</b>	<b>VIBRIO-LEPTO-5</b> <b>VIBRIO-3®</b>
<b>ANCHOR VITAMIN PRODUCTS</b> <b>RUMINANT PREMIX CONCENTRATE</b> <b>CALF &amp; PIG SCOUR POWDER</b> <b>FEED-MATE Calf/Veal</b> <b>FEED-MATE RUMINANT</b>	<b>AMINO-LITE PRODUCTS</b> <b>CALF &amp; PIG SCOUR POWDER</b> <b>VITAMIN A-D-500</b> <b>VITAMIN A-D-B<sub>12</sub></b> <b>VITAMIN B<sub>12</sub></b> <b>(Cyanocobalamin Injection)</b> <b>VITAMIN B<sub>12</sub></b> <b>(Hydroxocobalamin Injection)</b> <b>VITAMIN E</b>
<b>ANCHO-DINE</b>	<b>OXY-TET 50 or OXY-TET 100</b> <b>ANCHO-DINE</b> <b>SODIUM IODIDE 20%</b> <b>ANCOSUL PRODUCTS</b>
<b>BLUE LOTION SPRAY</b> <b>DISINFECTANT, GENERAL</b> <b>GENTLE IODINE SPRAY</b> <b>CHAPLESS TEAT DIP</b> <b>CHAPLESS UDDER CREAM</b>	<b>GENTLE IODINE SPRAY</b> <b>OXY-TET 50 or OXY-TET 100 (Infections)</b> <b>BLUE LOTION SPRAY</b>



# SWINE HEALTH PROBLEMS

CONDITION	SYMPTOMS
<b>ABORTION:</b> See Leptospirosis, page 33.	
<b>ANAPHYLAXIS:</b> See Shock, Anaphylactic, page 35.	
<b>ANEMIA:</b> Caused by deficiency of iron in the blood, or reduced number of red blood cells.	Lack of energy, poor growth, rough hair and skin, pale mucous membranes; healthiest pigs usually first to show symptoms.
<b>ARTHRITIS AND LAMENESS:</b> Inflammation of a joint; often accompanied by bacterial infection in the joint. See Erysipelas, page 33.	Enlargement and impaired movement of the joint; purplish discoloration; pain; often accompanied by fever.
<b>ATROPHIC RHINITIS:</b> Respiratory infection in baby pigs, often caused by <i>Bordetella bronchiseptica</i> ; often accompanied by pneumonia and collapsing of tissue and bones. (Not to be confused with Infectious Rhinitis.)	Sneezing, nasal discharge, coughing, unthriftiness in baby pigs; occasionally a turned snout, or face appearing "pushed in."
<b>BACTERIAL ENTERITIS:</b> See Scours, page 35.	
<b>BLACK SCOURS:</b> See Scours (Bloody), page 35.	
<b>BLOODY DYSENTERY:</b> See Scours (Bloody), page 35.	
<b>BULL NOSE:</b> See Infectious Rhinitis, page 33.	
<b>CASTRATION</b> (Infection)	
<b>CLOSTRIDIAL ENTERITIS:</b> Inflammation of small intestine caused by the invasion of <i>Clostridium perfringens</i> bacteria.	Almost always occurs in pigs less than one week old, usually in first 3 days; diarrhea, often bloody.
<b>COLIBACILLOSIS:</b> See Scours, Baby Pig, page 35.	
<b>DEHYDRATION:</b> The condition of being deficient in vital fluids and electrolytes.	Listlessness; rapid weight loss.
<b>DISINFECTION</b>	
<b>DYSENTERY:</b> See Scours, Bloody, page 35.	
<b>EDEMA DISEASE</b> (Gut Edema): Toxic build-up, resulting from <i>E. Coli</i> bacteria in the digestive system, often associated with change of feed or environment, and the stress of weaning and handling.	Most often occurs in pigs 6-10 weeks of age but also frequently strikes pigs 1-3 weeks old; often causes staggering gait, occasionally paralysis; hoarse grunt or squeal is characteristic; occurs anytime of year, often following stress conditions or discontinuance of antibiotic therapy.

\*Product listings and information, pages 54 thru 82.



PREVENTION*	TREATMENT*
FE-100 IRON DEXTRAN INJECTION VITAMIN B <sub>12</sub>	FE-100 IRON DEXTRAN INJECTION VITAMIN B <sub>12</sub>
SWINE PREMIX w/ FEED-MATE GENTLE IODINE SPRAY (navel) ERY-MUNE C® ERY-SERUM	SWINE PREMIX w/FEED-MATE ERY-SERUM COMBINATION ANTIBIOTIC
ISOLITE	
GENTLE IODINE SPRAY SCREW WORM & EAR TICK SPRAY	OXY-TET 50 COMBINATION ANTIBIOTIC TRIPLE SULFA PRODUCTS GENTLE IODINE SPRAY
C & D ANTITOXIN C & D TOXOID FEED-MATE 68® Soluble or FEED MIX	C & D ANTITOXIN FEED-MATE Calf/Veal
HYDRO-LITE ISOLITE FEED-MATE Calf/Veal FEED-MATE 68® Soluble or FEED MIX	AMINO-LITE AMINO-LITE 34X AMINO-LITE BOLUSES
DISINFECTANT, GENERAL CHAPLESS TEAT DIP	
FEED-MATE 68® Soluble or FEED MIX FEED-MATE Calf/Veal	DEXTROSE SOLUTION 50% AMINO-LITE

CONDITION	SYMPTOMS
<b>EPERYTHROZONOSIS:</b> Transmitted by blood-sucking insects or contaminated instruments. Results in destruction of red blood cells.	Most prevalent in summer months, especially in shoats; signs include weakness, jaundice, and bile-stained droppings.
<b>ERYSIPELAS:</b> A contagious disease which appears in chronic and acute forms, both of which interfere with growth, development, and livability.	Chronic — reduced appetites, poor doers, lameness, occasional swollen joints or skin sores. Acute — sudden sickness, high fever, loss of appetite, rapid death.
<b>EXTERNAL PARASITES:</b> See Insecticide Chart, pages 45-46.	
<b>FOOT ROT:</b> Infectious disease, most often found where pigs' feet are rasped by concrete floors, and dampness is present.	Extreme lameness; reluctance to get up for feed; advanced infection can cause arthritis and "bumble footedness."
<b>HYPOGLYCEMIA:</b> Sudden fall in level of blood glucose in baby pigs, caused by anything which prevents the intake of suitable foods; often caused by poor milk production in the sow. See Mastitis-Metritis-Agalactia Syndrome.	Often causes death in newborn pigs (1-3 days old); weakness; erection of hairs; shivering; coma. (Also look for diarrhea, lack of appetite and depression in sow.)
<b>ICTEROANEMIA</b> (Jaundice, Yellow Belly): Blood infection caused by obstruction of bile ducts of the liver, usually due to internal parasites.	Most prevalent in summer months, especially in shoats; signs include weakness, jaundice, and bile-stained droppings.
<b>INFECTIOUS RHINITIS</b> (Bull Nose): Caused by bacteria entering cut or wound — often associated with ringing pigs or clipping needle teeth. (Not to be confused with Atrophic Rhinitis.)	Diseased condition of face and snout; characterized by abscesses in soft, fleshy tissue around nasal passages.
<b>INFLUENZA</b> (Swine Flu): Highly contagious respiratory disease caused by a combination of viral and bacterial agents; slows weight gain and often leads to pneumonia.	Usually occurs in autumn, winter, or early spring; affected animal will go off feed, have a high fever with weakness, coughing, and running nose and eyes; an outbreak usually spreads through the entire herd.
<b>LEPTOSPIROSIS:</b> An infection of the urinary and reproductive tract creating economic losses. Carried by rodents, dogs, cattle, sheep, horses, goats; transmissible to man.	Abortion, or pigs born weak. Urinary infection shown by dark or bloody urine; stunted growth, or unthriftness in infected growing animals.
<b>LICE:</b> See Insecticide Chart, pages 45-46.	
<b>MANGE:</b> Irritation of the skin caused by demodectic and/or sarcoptic mites burrowing into the skin.	Usually start on head, eyes, ears, nose, spread to neck and back; dry, leathery, scabby skin; extreme itching causes reduced gains, lower feed efficiency.
<b>MASTITIS-METRITIS-AGALACTIA SYNDROME (MMA):</b> A complex syndrome usually involved with secondary infection causing poor or no milk production and breeding inefficiency, resulting in tremendous economic loss.	Most common 2-3 days after farrowing; sows' udders become hard and discolored and she may refuse to nurse pigs; she may go off of feed herself, and show signs of fever, weakness, and vaginal discharge.
<b>NAVEL ILL</b> (Navel Infection): Caused by bacterial infection of navel; infection may proceed through bloodstream to liver, lungs, joints, etc.; often causes death.	Found in <i>all</i> farm animals soon after birth. Signs of fever, depression, reluctance to move around, even to suck, appear; usually a lump around navel; occasional lameness.



## SWINE HEALTH PROBLEMS

PREVENTION*	TREATMENT*
Management	OXYTETRACYCLINE INJECTION IRON DEXTRAN INJECTION FE-100
ERY-MUNE-AVE/LEPTO-5 ERY-MUNE-AVE ERY-MUNE C® ERY-SERUM HYDROVAC®	ERY-SERUM PROCAINE PENICILLIN (AQUEOUS)
Management Genetics SWINE PREMIX w/FEED-MATE	VITAMIN A-D-500 GENTLE IODINE SPRAY
OXY-TET 50 (to sow)	AMINO-LITE DEXTROSE SOLUTION 50%
Management	PIPERAZINE WATER WORMER — 17%
Management	ISOLITE OXY-TET 50 or 100
ISOLITE	ISOLITE COMBINATION ANTIBIOTIC
LEPTO-5 LEPTOCON ERY-MUNE-AVE/LEPTO-5	COMBINATION ANTIBIOTIC OXY-TET 50 or 100
See Insecticide Chart, page 45-46.	See Insecticide Chart, page 45-46.
UTERINE CARE	UTERINE CARE OXY-TET 50 (Metritis)
GENTLE IODINE SPRAY STRONG IODINE	OXY-TET 50 or 100

CONDITION	SYMPTOMS
<b>PNEUMONIA:</b> Result of inflammation of the lungs in which air sacs fill up with discharge; many causes — some infectious, some non-infectious; usually follows chilling; often a secondary condition accompanying another disease.	Loss of appetite; fever between 102°-104°F; shallow breathing, often lie on chest to relieve discomfort; discharge from nostrils. (Swine Pneumonia is often confused with Hog Cholera, but does not spread as rapidly, and fever is not as high.)
<b>PPLO</b> (Pleuropneumonia-like organisms): Organisms found in the respiratory tract of swine; often among causes of pleuropneumonia and pneumonia.	See Pneumonia, above.
<b>PSS</b> (Porcine Stress Syndrome): See Stress, below.	
<b>SALMONELLOSIS:</b> Bacterial infection causing inflammation of the intestine and gall bladder; transmitted in feces and contaminated feed, water, and milk.	Most common in pigs up to 6 months of age; diarrhea; fever (105°-107°F); weight loss; death in 24-48 hrs.; often dark red-to-purple discoloration of skin, especially over ears and stomach.
<b>SCOURS</b> (Baby Pig): a highly contagious disease, usually occurring within first week of life; often caused by <i>E. Coli</i> or <i>Salmonella</i> (see Salmonellosis); faulty nutrition of sow, lack of proper housing, care, and sanitation also frequently contribute to Baby Pig Scours.	Yellow, fluid, putrid-smelling diarrhea; dehydration; loss of appetite; rough coat; loss of weight; death.
<b>SCOURS</b> (Bacterial): Acute inflammation of the intestines caused by the so-called coliform organisms; may result from pre-natal infection, infection by way of milk, navel infection, or ingestion of contaminated materials.	Diarrhea; loss of weight; high death rate; unthriftiness.
<b>SCOURS</b> (Bloody): Bacterial infection of the large intestine caused mainly by <i>Vibrio coli</i> and <i>Treponema hyodysenteriae</i> , resulting in bloody diarrhea, dehydration, loss of weight, and subsequent unthriftiness or death. Also known as Bloody Dysentery or Black Scours.	Profuse diarrhea becoming bloody, frequently with shreds of intestinal tissue; occasionally a slight fever; affects swine of all ages, but mostly in feeders 7-12 weeks of age, especially in new feeder pigs.
<b>SEPTICEMIA:</b> A blood poisoning caused by harmful microorganisms and their by-products in the blood stream. (See, for example, Icteroanemia, page 33.)	Fever; chill; exhaustion; severity depends on type of germs present.
<b>SHOCK, ANAPHYLACTIC</b> (Serum Sickness): Sensitivity to injections of foreign materials: serums, vaccines, bacterins, possibly other medicines or proteins.	Labored breathing; drop in temperature; muscular weakness; convulsions; collapse with death following.
<b>SMEDI</b> (Picornavirus): Viral infection responsible for stillbirths, mummified fetuses, and abortions in pregnant sows; infects swine of all ages.	Serviced sows returning to estrus after 4-5 weeks; abortions, stillbirths; mummified fetuses; little or no symptoms in infected sow or other infected animals, but may leave animal open to bacterial infection.
<b>STRESS:</b> The effect of such disruptive influences as drastic temperature or feed changes, or environmental crowding; results in emotional and physical strains.	Nervousness; poor productive performance; disease; especially in swine during weaning, shipping, and weather extremes.

\*Product listings and information, pages 54 thru 82.

# SWINE HEALTH PROBLEMS

PREVENTION*	TREATMENT*
	ISOLITE TRI-SULFA
FEED-MATE 68® Soluble or FEED MIX FEED-MATE Calf/Veal	ISOLITE FEED-MATE 68® Soluble
SWINE PREMIX w/FEED-MATE FEED-MATE 68® Soluble or FEED MIX FEED-MATE Calf/Veal	OXY-TET 50® (to sow) LITTER-MATE® with NEOMYCIN FEED-MATE 68® Soluble FEED-MATE Calf/Veal
OXY-TET 50 & 100 FEED-MATE 68® Soluble or FEED MIX FEED-MATE Calf/Veal	OXY-TET 50 & 100 LITTER-MATE® FEED-MATE 68® Soluble
FEED-MATE 68® Soluble or FEED MIX FEED-MATE Calf/Veal	ISOLITE FEED-MATE 68® Soluble OXY-TET 50
	COMBINATION ANTIBIOTIC
	EPINEPHRINE INJECTION U.S.P
Management	Management
Management HYDRO-LITE FE-100 IRON DEXTRAN INJECTION FERRO-TREET	ISOLITE FE-100 IRON DEXTRAN INJECTION FERRO-TREET



CONDITION	SYMPTOMS
<b>TAIL BITING:</b> Generally thought to be related to anemia or anoxia of various origins.	
<b>TETANUS (Lockjaw):</b> Disease caused by <i>Clostridium tetani</i> ; characterized by uncontrolled spasms of voluntary muscles; most often infection occurs at a castration wound or umbilical cord.	First symptoms are nervousness and stiffness, with difficulty in chewing and swallowing; eventually muscles become so stiff that walking is impossible, spasms are apparent; infection may be visually apparent at wound site; death occurs during spasms.
<b>TGE (Transmissible Gastroenteritis):</b> Viral disease, fatal to young pigs, less severe in older animals; characterized by inflammation of stomach and intestine.	White, yellow, to green diarrhea; vomiting; rapid weight loss; dehydration; slight temperature increase, returning to normal or below normal; surviving pigs usually develop secondary bacterial scours which may be the cause of death. (See Scours, Bacterial, page 35.)
<b>VITAMIN DEFICIENCIES:</b>	
<b>Vitamin A Deficiency (Avitaminosis):</b> Lack of Vitamin A intake resulting in unthriftiness; swollen joints; abortions; special needs (up to 5 times normal requirements) in gestating and lactating sows.	Night blindness; discharge from eyes; paralysis of rear legs; diarrhea; weakness; abortions or runt litters from affected sows.
<b>Vitamin B<sub>1</sub> Deficiency (Thiamine Deficiency):</b> Lack of Thiamine.	Lack of appetite; low rate of reproduction; decreased milk flow.
<b>Vitamin B<sub>2</sub> Deficiency (Riboflavin Deficiency):</b> Lack of Riboflavin.	Slow growth rates; crippling of legs; rough skin; diarrhea.
<b>Vitamin B<sub>6</sub> Deficiency (Pyridoxine Deficiency):</b> Lack of Pyridoxine in diet.	Fits (similar to epilepsy); anemia.
<b>Vitamin C Deficiency (Ascorbic Acid Deficiency):</b> Lack of Vitamin C in diet.	Slow growth; lowered fertility in boars.
<b>Vitamin D Deficiency:</b> Vitamin D is necessary for utilization of calcium and phosphorus; pigs exposed to sunlight daily rarely need Vitamin D supplementation.	Stiffness; poor bone and teeth formation; coarse hair and skin; unthriftiness.
<b>Vitamin E Deficiency:</b> Lack of Vitamin E.	Slow growth; lowered fertility.
<b>VIBRIO DYSENTERY:</b> See Scours (Bloody), page 35.	
<b>WORMS (Internal Parasites):</b> Large roundworms ( <i>Ascaris lumbricoides</i> ) are the most common swine worm; responsible for retarded growth, digestive and respiratory difficulties. Nodular worms ( <i>Oesophagostomum radiatum</i> ) cause lumps in digestive tract which impair health and damage intestines.	Unthriftiness; "thumping" cough; diarrhea and weight loss.
<b>WOUNDS:</b> Injuries in which the skin or any other body tissue is broken; wound infections cause great losses annually; all are potential killers.	Depend on type of organisms present. (For example, see Tetanus.)
<b>YELLOW BELLY (Eperythrozoonosis):</b> See Icteroanemia, page 33.	

\*Product listings and information, pages 54 thru 82.

## SWINE HEALTH PROBLEMS

PREVENTION*	TREATMENT*
SWINE PREMIX w/FEED-MATE ANCHO-DINE Control Stomach Worms	ANCHO-DINE
TETANUS ANTITOXIN	TETANUS ANTITOXIN
Consult your veterinarian.	FEED-MATE 68® Soluble To repopulate intestinal bacteria.
ANCHOR VITAMIN PRODUCTS SWINE PREMIX w/FEED-MATE	SWINE PREMIX w/FEED-MATE VITAMIN A-D-500 VITAMIN A-D-B <sub>12</sub>
Management	PIPERAZINE WATER WORMER — 17%
GENTLE IODINE SPRAY BLUE LOTION SPRAY	GENTLE IODINE SPRAY BLUE LOTION SPRAY

# SHEEP HEALTH PROBLEMS

CONDITION	SYMPTOMS
<p><b>BIGHEAD:</b> Swelling of tissue, especially head, neck, and ears; caused by clostridial infection (especially following butting in young rams), calcium deficient diets (hypoparathyroidism), or from eating certain plants (littleleaf horsebrush, spring rabbitbrush, coal oil brush, and spineless horsebrush) which trap blood in the vessels near the skin when exposed to light.</p> <p><b>BLACK DISEASE</b> (Infectious Necrotic Hepatitis): Clostridial infection of intestine and liver by <i>Clostridium novyi</i>; transmitted by sheep and liver flukes.</p> <p><b>BLACKLEG:</b> Infection caused by <i>Clostridium chauvoei</i>; in sheep, unlike cattle, infection through ingestion is rare; usually follows some sort of injury such as shearing cuts or castration.</p> <p><b>DEHYDRATION:</b> The condition of being deficient in vital fluids and electrolytes.</p> <p><b>ENTEROTOXEMIA:</b> See Overeating Disease.</p> <p><b>FOOT ROT:</b> Infectious disease, especially prevalent in rainy weather, or in swampy pastures.</p> <p><b>LEPTOSPIROSIS:</b> Infection of the urinary and reproductive tract; often carried to sheep by cattle and swine.</p> <p><b>LICE:</b> See Insecticide Chart, page 45-46.</p> <p><b>MALIGNANT EDEMA</b> (Braxy): A generally fatal disease of the blood caused by <i>Clostridium septicum</i>; usually infection follows wounds of castration, etc.</p> <p><b>OVEREATING DISEASE</b> (Enterotoxemia; Pulpy Kidney): Disease of digestive tract caused by <i>Clostridium perfringens</i>, usually under heavy feeding of contaminated feed.</p> <p><b>PNEUMONIA:</b> Initial infection considered to be caused by virus or viruses; complicated by bacterial infection; predisposing causes are exhaustion, stress, and sudden changes in weather or temperature.</p> <p><b>PREGNANCY DISEASE</b> (Ketosis; Acetonemia): Highly fatal disturbance of metabolism in pregnant ewes; especially in ewes carrying twins or triplets.</p> <p><b>REDWATER DISEASE:</b> <i>Clostridium hemolyticum</i>.</p> <p><b>SHIPPING FEVER:</b> See Pneumonia above.</p>	<p>Skin irritation; swelling of head, neck, ears and lips; lameness in cases of calcium deficiency.</p> <p>Most prevalent in 1-4 year old animals, especially in summer when liver fluke infection is high; indolence followed by sudden death are common.</p> <p>Usually in animals over 6 months old; lameness; fever (105°-107°F); swelling, especially in hindquarters, and spasms; death usually occurs in 12-48 hours.</p> <p>Listlessness; rapid weight loss.</p> <p>Lameness; swelling between toes or above the hoof; foul-smelling pus excretion; reluctance to stand and feed due to pain.</p> <p>Abortion, or lambs born weak; bloody urine; stunted growth.</p> <p>Fever; swelling around wound; death within 2 days.</p> <p>Sudden death; staggers; convulsions.</p> <p>High temperature; loss of appetite; difficult and rapid breathing; respiratory distress; coughing; nasal discharge; muscular trembling; dehydration.</p> <p>Listlessness; lack of appetite; grinding of teeth; death.</p> <p>High fever; depression; sudden deaths; profuse passage of dark red urine; bloody diarrhea; death follows appearance of symptoms in 24-36 hours.</p>



PREVENTION*	TREATMENT*
<b>Bar-Vac® PRODUCTS</b> Prevent consumption of poisonous plants.	Oxytetracycline Injection Limestone
<b>Bar-Vac®-7 or Bar-Vac® PRODUCTS</b>	
<b>Bar-Vac® PRODUCTS</b>	
AMINO-LITE, HYDRO-LITE FEED-MATE Calf/Veal	AMINO-LITE FEED-MATE Calf/Veal
<b>ANCHO-DINE</b>	TRI-SULFA ANCHO-DINE
LEPTO-5 LEPTOCON	OXY-TET 50 or 100 ANTIBIOTIC COMBINATION
<b>Bar-Vac® PRODUCTS</b>	Massive doses (5000 units/lb.) of penicillin may be helpful.
<b>Bar-Vac® CD/T</b> C & D TOXOID FEED-MATE 68® Soluble or FEED MIX	C & D ANTITOXIN
<b>ISOLITE</b>	TRIPLE SULFA PRODUCTS Oxytetracycline Injection
<b>KETOSIS CURE</b>	DEXTROSE SOLUTION 50% KETOSIS CURE
<b>Bar-Vac®-H</b>	(no treatment)



CONDITION	SYMPTOMS
<b>STIFF-LAMB DISEASE:</b> See White Muscle Disease.	
<b>TETANUS</b> (Lockjaw): Disease caused by <i>Clostridium tetani</i> ; most often infection occurs at site of wound.	Nervousness; stiffness; difficulty in chewing and swallowing; death occurs during spasms.
<b>WHITE MUSCLE DISEASE</b> (Stiff-Lamb Disease): Associated with deficiency of Vitamin E in lambs; non-infectious disease of muscles.	Most common in lambs 3-10 weeks of age, especially lambs born in winter or early spring; stiffness is main symptom; occasionally results in death.
<b>WORMS</b> (Internal Parasites): Principally <i>Haemonchus contortus</i> , <i>Ostertagia circumcincta</i> , and <i>Tricho-strongylus axe</i> .	Unthriftiness; diarrhea and weight loss.
<b>WOUNDS:</b> Injuries in which the skin or any other body tissue is broken; wound infections cause great losses annually; all are potential killers.	Depend on type of organisms present. (For example, see Bighead, Blackleg, Malignant Edema.)

## HORSE HEALTH PROBLEMS

<b>COLIC</b> (Wind Colic, Spasmodic Colic, Bloat): General term referring to several conditions causing stomach and intestinal disturbance and pain.	Swollen stomach (bloat); obvious sharp pain (may come on suddenly); kicking and pawing; attempts to vomit; profuse sweating; death.
<b>NAVEL ILL</b> ("Sleepy Foal Disease"): Bacterial infection affecting foals in the womb or shortly after birth.	Weak or dead at birth; lameness and swelling of joints.
<b>NUTRITIONAL DEFICIENCIES:</b> Horses have very special nutritional requirements because of their relatively long, athletic lives; especially critical in competition animals, in foals, and in brood mares.	Symptoms vary according to specific deficiency; mostly related to growth and body function.
<b>RESPIRATORY DISEASES</b> (Pneumonia, Strangles, Influenza, "Shipping Fever"): Several very contagious viral and bacterial diseases can affect the horse's respiratory tract, often complicated by bacterial infection.	Discharge from nostrils; coughing; fever and chills; inflammation and abscesses under jaw (strangles); inflammation of nose and eyes.
<b>SLEEPING SICKNESS</b> (Brain Fever, Encephalitis): Acute viral infection of the nervous system; often carried by mosquitoes and ticks.	Fever; paralysis of jaw and throat; lack of appetite; characteristic listlessness, leaning, and staggering walk; "spookiness"; death.
<b>WORMS</b> (Internal Parasites):	Unthriftiness; weight loss; rough coat; diarrhea; Bloodworm Colic death.
<b>WOUNDS:</b> Injuries in which the skin or any other body tissue is broken; wound infections cause great losses annually; all are potential killers.	Symptoms vary according to the type of infective organisms present. (For example, see Navel Ill.)

\*Product listings and information, pages 54 thru 82.

# SHEEP/**HORSE** HEALTH PROBLEMS

PREVENTION*	TREATMENT*
Bar-Vac® CD/T TETANUS ANTITOXIN	TETANUS ANTITOXIN
RUMINANT PREMIX CONCENTRATE	VITAMIN E INJECTABLE
	FEN-ARSENATE DRENCH
	GENTLE IODINE SPRAY BLOOD STOPPER CHAPLESS UDDER CREAM BLUE LOTION SPRAY



FEED-MATE EQUINE Control bot worms.	Consult your veterinarian.
GENTLE IODINE SPRAY IODINE TINCTURE	
FEED-MATE EQUINE	FEED-MATE Equine
Various specific vaccines.	COMBINATION ANTIBIOTIC TRI-SULFA PRODUCTS
Consult your veterinarian.	Consult your veterinarian.
	BLUE LOTION SPRAY SCREW WORM & EAR TICK SPRAY



# PET HEALTH PROBLEMS

CONDITION	SYMPTOMS
<b>CANINE DISTEMPER:</b> Highly contagious viral disease of dogs, spread in the air or by other dogs, contaminated objects, or droppings; results in death about 50% of the time.	Primarily affects younger animals, but can occur in dogs of any age; fever; chills; vomiting and diarrhea; loss of appetite; running eyes and nose.
<b>CANINE HEPATITIS:</b> Infectious, highly contagious viral disease, resulting in breakdown of blood and possible death; usually spread by ingestion of virus in contaminated food or water.	Varies from slight fever and running eyes and nose to depression, blood-shot eyes, and signs of swelling in neck, head, and body.
<b>CANINE LEPTOSPIROSIS:</b> Infectious disease caused by <i>Leptospira canicola</i> and <i>Leptospira icterohemorrhagiae</i> ; often transmitted in urine; may be transmitted to man.	Sudden onset; listlessness; stiffness of body joints and abdominal pains; hemorrhages on lips and gums; occasional bloody diarrhea.
<b>CANINE PARVOVIRUS:</b> Highly contagious disease of dogs. Commonly characterized by vomiting and bloody diarrhea. Death rate may exceed 50% among infected dogs.	Fever and depression followed by vomiting and bloody diarrhea. Affected pups often found dead after short episode.
<b>EAR CANKERS:</b> Inflammation of ear caused by mites, foreign objects, accumulation of wax, soap or water; especially frequent in dogs with hanging, hairy ears.	Vigorous scratching; shaking of head; ear hot to touch; often a disagreeable odor and oozing.
<b>ECZEMA:</b> Inflammation of the skin caused by dietary inadequacies, allergies, chronic irritations, and external parasites. See Mange.	Redness of skin; itching; oozing or bleeding patches of skin.
<b>FLEAS:</b> Affect all dogs and cats, as well as man; have been known to carry such diseases as Bubonic Plague and are intermediate hosts for tapeworms.	Severe itching; oozing, bleeding sores; skin irritation.
<b>KENNEL COUGH:</b>	Itching; skin irritation.
<b>LICE:</b> Dogs often host both sucking and biting lice; heavy infestations may damage health.	Severe itching; Sarcoptic mange results in loss of hair ("patching"). Demodectic mange results in bare, dark spots, usually on face and legs.
<b>MANGE:</b> Very common, highly contagious skin disorder caused by various mites; results in great discomfort and damage to skin and coat.	Weakness; fever; vomiting; diarrhea and dehydration.
<b>PANLEUKOPENIA (Feline Distemper):</b> Highly infectious disease of cats and kittens, with death rates as high as 80% in younger kittens.	Attachment of tick; dog biting at site of irritation.
<b>TICKS:</b> External parasites which attach to dog's skin and suck blood; result in irritation; can carry blood diseases to dogs and man.	Swollen lips and tongue; heavy salivation; dog may stop eating.
<b>VITAMIN B DEFICIENCY (Black Tongue):</b> Caused by lack of Vitamin B in diet.	Slow growth; diarrhea; loss of appetite; poor hair coat; laziness.
<b>WORMS (Internal Parasites):</b> Very common in dogs, transmitted by soil, feces, other dogs, or fleas and lice.	Depend on type of organisms present.
<b>WOUNDS:</b> Injuries in which the skin or any other body tissue is broken; wound infections cause great losses annually; all are potential killers.	

**PREVENTION\***

PUPPY-VAC  
SOLO-JEC-5  
SOLO-JEC-L  
SOLO-JEC-6

SOLO-JEC-5  
SOLO-JEC-L  
SOLO-JEC-6

SOLO-JEC-5  
SOLO-JEC-L  
SOLO-JEC-6

PARVO-VAC  
SOLO-JEC-6

EAR OINTMENT

FLEA, LICE & TICK POWDER  
FLEA, LICE & TICK AEROSOL  
DERMA-SECT SHAMPOO (for dogs  
only)

SOLO-JEC-5 or SOLO-JEC-6

FLEA, LICE & TICK AEROSOL  
or POWDER  
DERMA-SECT SHAMPOO (for dogs only)  
DOG DIP AND SPRAY

DERMA-SECT SHAMPOO (for dogs  
only)  
DOG DIP AND SPRAY

FELIN-L

FLEA, LICE & TICK POWDER  
FLEA, LICE & TICK AEROSOL  
DERMA-SECT SHAMPOO (for dogs only)  
DOG DIP AND SPRAY

Management  
Sanitation

**TREATMENT\***

Consult your veterinarian.

Consult your veterinarian.

COMBINATION ANTIBIOTIC

Consult your veterinarian.

EAR OINTMENT

Consult your veterinarian.

FLEA, LICE & TICK POWDER  
FLEA, LICE & TICK AEROSOL  
DERMA-SECT SHAMPOO (for dogs  
only)

FLEA, LICE & TICK AEROSOL  
or POWDER  
DERMA-SECT SHAMPOO (for dogs only)  
DOG DIP AND SPRAY

MANGE LOTION (for dogs only)  
DOG DIP AND SPRAY

Consult your veterinarian.

FLEA, LICE & TICK POWDER  
FLEA, LICE & TICK AEROSOL  
DOG DIP AND SPRAY

Consult your veterinarian.

CANINE WORMER  
PIPERAZINE

GENTLE IODINE SPRAY

# BEEF CATTLE

PROBLEM	SOLUTION
Ticks, Horn Flies, Lice	*Permethrin liq./powder Permethrin Ear Tag/Strip Fly and Louse Dust
Ticks, Lice	*Permethrin liq./powder Permethrin Ear Tag/Strip Mange and Louse Spray
Sarcoptic Mange	
Ticks, Horn Flies, Lice	Livestock Spray and Backrubber
Horn Flies, Lice, Face Flies	*Permethrin liq./powder Permethrin Ear Tag/Strip Flip Top Dust Bag (Fly & Louse Dust)
Horn Flies, Stable Flies, Face Flies, House Flies, Lice, Ticks	*Permethrin liq./powder Permethrin Ear Tag/Strip Dairy & Livestock Spray
Grubs and Lice	Grub, Pour-On

# DAIRY CATTLE

Horn Flies, Lice, Ticks	*Permethrin liq./powder Permethrin Ear Tag/Strip Dairy Cattle Dust Fly & Louse Dust
Horn Flies, Lice	*Permethrin liq./powder Permethrin Ear Tag/Strip Flip Top Dust Bag (Fly & Louse Dust)
Horn Flies, Stable Flies, Face Flies, House Flies, Lice, Ticks	*Permethrin liq./powder Permethrin Ear Tag/Strip Dairy & Livestock Spray
	Dairy Fly Aerosol

# HOGS

Mange, Lice	*Permethrin liq./powder Mange and Louse Spray
Lice on hogs and litter	Livestock-Litter Dust Fly & Louse Dust
Mange, Lice, Ticks	*Permethrin liq./powder

# SHEEP AND GOATS

Flies, Lice	Permethrin Ear Tag/Strip
Psoroptic Mites (responsible for sheep scabies)	Mange and Louse Spray

# HORSES AND PONIES

Horn Flies, Stable Flies, and Other small flying insects	Horse Spray and Rub-On Permethrin Strip
---	--

# BARNES AND PREMISES Dairy Barnes, Hog Barnes, Poultry Barnes

House, Stable, Face and Horn Flies	*Permethrin liq./powder Dairy Fly Aerosol
---------------------------------------	--

See label for complete directions and warnings before using.

\*Permethrin — check directions on label for indi

\*Product listings and information, pages 54 thru 82.

# Insect Problems/Product Solutions

APPLICATION	BENEFITS
Use as spray Versatile Application Flip Top Dust Bag	Long residual control Full season control No labor required
Use as spray Versatile Application Dip or backrubber	Long residual protection Full season control Economical
Use coarse spray to penetrate skin	Good control for resistant and hard to kill insects
Use as spray Versatile Application Dust animals or let them use free-choice	Long residual control Full season control Pre-packed hanging duster—heavy bag material resists the elements
Use as spray Versatile Application Spray thoroughly or use as backrubber	Long residual control Full season control Control wide range of insects
Pour along mid-line of back from shoulder to tail head as directed	Easy to use—no mixing or diluting
Use as spray Versatile Application Dust back and neck	Long residual control Full season control Long-lasting control
Use as spray Versatile Application Dust animals or let them use free-choice	Long residual control Full season control Pre-packed hanging duster—heavy bag material resists the elements
Use as spray Versatile Application Spray thoroughly or use as backrubber Use as a fogger	Long residual control Full season control Control wide range of insects Use on lactating Dairy Cattle
Use as spray Apply to animals, hog pens, etc. Dust on pigs and litter	Long residual control Residual control—Use on Livestock or Premises One application usually sufficient for control of lice
Use as spray	Long residual control
Versatile Application Thoroughly cover animal with spray	Full season control Can be sprayed on animals and buildings for wide range insect control
Spray or wipe on Versatile Application	Repelling and killing action—adds lustre to coat Full season control
<b>s, Kennels, Stables, Etc.</b>	
Apply as residual spray to walls, ceilings, etc.	Good residual control—economical, one gallon of spray to 500-1,000 sq. ft. surface Quick knockdown action

dual state approvals.



# ANCHOR DAIRY HEALTH PROGRAM



As recommended by Anchor Professional Services

## Cows

### 3 to 6 weeks before breeding:

- |  |   |
|--|---|
| 1. BAR SOMNUS-2P (2cc IM) .....                    | pneumonia, BRD and "thrombo"                          |
| 2. IBR-BVD-PI <sub>3</sub> /LEPTO-5 (2cc IM) ..... | bovine virus diseases and five types of leptospirosis |
| 3. VITAMIN AD-500 (2cc IM) .....                   | A-D vitamin levels                                    |

### 3 to 6 weeks before calving:

- |                                       |                                 |
|---------------------------------------|---------------------------------|
| 1. BAR-4® (5cc IM) .....              | IBR-PI <sub>3</sub> Pasteurella |
| 2. SOMATO-STAPH® (5cc IM) .....       | prevent staph mastitis          |
| 3. BAR SOMNUS-2P (2cc IM) .....       | pneumonia, BRD and "thrombo"    |
| 4. DRY-MAST® (10ml per quarter) ..... | udder infusion dry treat        |
| 5. TYPES C & D TOXOID .....           | enterotoxemia (sudden death)    |
| 6. GRUB POUR-ON .....                 | grubs (in season)               |
| 7. FEED-MATE CRUMBLES .....           | Inoculant                       |

Adequate nutrition during the last 60 to 90 days of gestation is essential for reduction of baby calf scours.

## At calving:

- |                            |                           |
|----------------------------|---------------------------|
| 1. CHAPLESS TEAT DIP ..... | chlorhexidine & glycerine |
| 2. UTERINE CARE .....      | sulfa urea infusion       |

### 4 to 5 months after calving:

- |                                 |                        |
|---------------------------------|------------------------|
| 1. SOMATO-STAPH® (5cc IM) ..... | prevent staph mastitis |
|---------------------------------|------------------------|

## Calves at birth:

Be sure calf gets 1-1½ pt colostrum within 15-30 minutes of birth; 4 pt by 12 hours.

- |                                       |                               |
|---------------------------------------|-------------------------------|
| 1. BO-BAC 2X (½cc/lb.) .....          | antibacterial serum           |
| 2. BAR SOMNUS-2P (2cc IM) .....       | pneumonia, BRD, and "thrombo" |
| 3. C & D ANTITOXIN (10cc SQ) .....    | enterotoxemia (sudden death)  |
| 4. VITAMIN ADB <sub>12</sub> .....    | stimulate appetite            |
| 5. FEED-MATE 68® (1 tablespoon) ..... | inoculate intestinal tract    |
| 6. GENTLE IODINE SPRAY .....          | navel infection               |

Ear tag and record birth date for heifers; castrate bulls.

### Heifers 6 to 12 months of age:

- |  |  |
|--|--|
| 1. IBR-BVD-PI <sub>3</sub> /LEPTO-5 (2cc IM) ..... | red nose, virus diarrhea, influenza, and five leptos |
| 2. BAR SOMNUS-2P (2cc IM) .....                    | pneumonia, BRD, and "thrombo"                        |
| 3. Bar-Vac®-7 (5cc IM) .....                       | blackleg, malignant edema & enterotoxemia            |
| 4. SOMATO-STAPH® .....                             | prevent staph mastitis                               |
| 5. VITAMIN AD-500 .....                            | supplement daily sources of A-D vitamins             |
| 6. GRUB POUR-ON .....                              | grubs (in season)                                    |
| 7. FEED-MATE CRUMBLES .....                        | Inoculant rumen and intestine                        |

These recommendations are necessarily generalized. Specific programs must be tailored to your area and individual needs.

Be sure to read and follow all product label directions carefully.

For complete product descriptions and program details, see your Anchor Animal Health Supplier today.

# ANCHOR FEEDLOT HEALTH PROGRAM



As recommended by Anchor Professional Services

Cattle in fairly good state of health, under minimum stress, may receive upon arrival:

1. IBR/BAR SOMNUS-2P or in combination with BVD or PI<sub>3</sub>
2. Bar-Vac®-7 or Bar-Vac®-7/SOMNUS
3. VITAMIN A-D 500 or ADB<sub>12</sub>
4. OXY-TET 100

For incoming cattle under stress (400 lb - 700 lb), below normal in general health: wormy, signs of pneumonia, shipping fever, etc.

## Day one — within 48 hours of arrival

- |  |  |
|--|--|
| 1. BO-BAC 2X (30cc/100 lb) .....           | IBR, BVD viruses, secondary infections caused by corynebacterium & pasteurilla organisms |
| 2. FEED-MATE CRUMBLES .....                | rumen/intestinal inoculant   |
| 3. BAR SOMNUS or BAR SOMNUS-2P .....       | pneumonia, BRD   |
| 4. OXY-TET 100 (5cc/100 lb) .....          | broad-spectrum antibiotic  |
| 5. ANCOSUL PRODUCTS .....                  | sulfadimethoxine bolus, powder, injectable   |
| 6. AMINO-LITE (drench or bolus) .....      | dehydration  |
| 7. VITAMIN A-D-B <sub>12</sub> (2cc) ..... | A-D-B <sub>12</sub> vitamin levels   |
| 8. Bar-Vac®-7 or Bar-Vac®-7/SOMNUS .....   | blackleg & other clostridium infections  |
| 9. LEPTO-5 .....                           | five types of leptos   |
| 10. Implant STEER-oid .....                | growth implant   |

## Days 1-7 — drinking water treatment

- |                                      |                             |
|--------------------------------------|-----------------------------|
| 1. FEED-MATE Calf/Veal .....         | rumen/intestinal inoculant  |
| 2. ISOLITE or ANCOSUL PRODUCTS ..... | drinking water sulfa        |
| 3. HYDRO-LITE .....                  | drinking water electrolytes |

## Days 18-21

- |  |                            |
|--|----------------------------|
| 1. IBR/BAR SOMNUS-2P or in combination with BVD or PI <sub>3</sub> ..... |                            |
| 2. GRUB POUR-ON (½ oz/cwt) .....   | grubs, lice                |
| 3. FEED-MATE CRUMBLES .....  | rumen/intestinal inoculant |

Dehorn and castrate. Wait 18-21 days after the initial BO-BAC 2X injection before giving the IBR, BVD or PI<sub>3</sub> to avoid destruction of the vaccine virus by the serum antibodies.

Sick Pens: (Herd treatment a minimum of 3 days)

- |                                      |                             |
|--------------------------------------|-----------------------------|
| 1. ISOLITE or ANCOSUL PRODUCTS ..... | drinking water sulfa        |
| 2. HYDRO-LITE .....                  | drinking water electrolytes |
| 3. FEED-MATE CRUMBLES .....          | rumen/intestinal inoculant  |

Individual Treatment (1 to 5 days)

- |   |                            |
|---|----------------------------|
| 1. ANCOSUL BOLUS or INJECTION .....                           |                            |
| 2. OXY-TET 100 (5cc/100 lb once daily) .....                  |                            |
| 3. ANTIBIOTIC COMBINATION (10 to 20cc every 8-12 hours) ..... |                            |
| 4. VITAMIN A-D-B <sub>12</sub> (2cc IM) .....                 |                            |
| 5. AMINO-LITE (2 to 3cc/lb body weight, IP or IV) .....       |                            |
| 6. FEED-MATE Calf/Veal .....                                  | rumen/intestinal inoculant |

Sick pens should have high energy rations because 7% more energy is required to compensate for the energy loss caused by each degree of fever.

These recommendations are necessarily generalized. Specific programs must be tailored to your area and individual needs.

Be sure to read and follow all product label directions carefully.

For complete product descriptions and program details, see your Anchor Animal Health Supplier today.

# ANCHOR BEEF COW/CALF HEALTH PROGRAM



As recommended by Anchor Professional Services

## Replacement Heifers and Cows 3 to 6 weeks prior to breeding:

- |   |                                   |
|---|-----------------------------------|
| 1. VIBRIO-LEPTO 5 (5cc IM) .....                                      | vibrio and 5-way lepto protection |
| 2. SOMATO STAPH® (5cc IM) .....                                       | prevent staph mastitis            |
| 3. IBR-BVD-PI <sub>3</sub> /BAR SOMNUS-2P or other combinations ..... | bovine virus diseases and BRD     |
| 4. VITAMIN AD-500 (2cc IM) .....                                      | A-D vitamin levels                |

Control parasites: worm; spray for lice and flies. Rectal palpation 30-60 days after breeding to confirm pregnancy.

## Cow herd 3 to 6 weeks prior to calving:

- |                                    |                              |
|------------------------------------|------------------------------|
| 1. TYPES C-D TOXOID (5cc SQ) ..... | enterotoxemia (sudden death) |
| 2. BAR-4® or BAR-2 SOMNUS .....    | pneumonia and "thrombo"      |
| 3. VITAMIN AD-500 (2cc IM) .....   | A-D vitamin levels           |

## Calves at birth:

- |   |                                    |
|---|------------------------------------|
| 1. FEED-MATE 68® SOLUBLE or Calf/Veal (1 tablespoon by mouth) ..... | bacterial inoculant                |
| 2. BO-BAC-2X (½cc/lb SQ) .....                                      | supplement colostrum antibodies    |
| 3. C & D ANTITOXIN (10cc SQ) .....                                  | enterotoxemia (sudden death)       |
| 4. VITAMIN ADB <sub>12</sub> (½cc IM) .....                         | A-D-B <sub>12</sub> vitamin levels |
| 5. GENTLE IODINE SPRAY .....  | control navel infections           |

## Calves 1-3 months

- |                            |   |
|----------------------------|---|
| 1. BAR-4® .....            | killed IBR, PI <sub>3</sub> , Pasteurella |
| 2. Bar-Vac®-7/SOMNUS ..... | blackleg group and "thrombo"              |
| 3. LEPTO-5 .....           | 5 types of Lepto                          |

## Calves 4 to 6 months:

- |   |  |
|---|--|
| 1. Bar-Vac®-7 SOMNUS or other Bar-Vac® products (5cc IM) .....            | blackleg group and "thrombo"                                 |
| 2. IBR-BVD-PI <sub>3</sub> /BAR SOMNUS-2P or other IBR combinations ..... | red nose, virus diarrhea, influenza, pneumonia and "thrombo" |
| 3. VIBRIO-LEPTO-5 (5cc IM) .....  | Vibrio & 5-way Lepto protection (heifer replacement)         |
| 4. SOMATO-STAPH® (5cc IM) .....   | prevent staph mastitis                                       |
| 5. Bar-Vac®-H (5cc SQ or IM) .....  | Red water disease  |
| 6. VITAMIN ADB <sub>12</sub> .....  | A-D-B <sub>12</sub> vitamin levels                           |
| 7. GRUB POUR-ON .....   | grubs & lice (in season)                                     |
| 8. INTERNAL PARASITES .....   | use treatment of choice                                      |
| 9. Implant STEER-oid (over 400 lbs.) .....                                | growth Implant   |

Be sure to read and follow all product label directions carefully.

For complete product descriptions and program details, see your Anchor Animal Health Supplier today.



# NCA

## Calf health program summary

**Calves 1 to 3 months of age**

Diseases/Vaccinations		Anchor Product
IBR PI <sub>3</sub> Pasteurella		Bar-4® (5ml IM)
Clostridial 7-way bacterin <i>Haemophilus somnus</i>		Bar-Vac® 7/Somnus (5ml IM)
Leptospirosis		Lepto-5 (2ml IM)
ADDITIONAL PROCEDURES — Castrate, dehorn, implant (except breeding replacements)		
<b>At or prior to weaning</b>		
Diseases/ Vaccinations	(Booster)	Anchor Product
IBR BVD PI <sub>3</sub> Pasteurella <i>Haemophilus somnus</i>	✓  ✓ ✓ ✓	IBR-BVD-PI <sub>3</sub> / Bar Somnus-2P (2ml IM)
Clostridial 7-way bacterin	✓	Bar-Vac® 7 (5ml IM)
Leptospirosis Vibriosis (for breeding replacements)	✓	Vibrio-Lepto 5 (5ml IM)
ADDITIONAL PROCEDURES — Parasite control (internal/external), Brucellosis, Vitamin A, re-implant		

# ANCHOR CALF/VEAL HEALTH PROGRAM

As recommended by Anchor Professional Services



## VACCINATION SCHEDULE — Day of arrival

1. **VITAMIN ADB<sub>12</sub>** ..... builds natural resistance to disease and stimulates appetite
2. **OXY-TET 50-100 or COMBINATION ANTIBIOTIC** ..... antibiotic prevention of respiratory disease
3. First Feeding:
  - a. **FEED-MATE CALF/VEAL** ..... is an intestinal inoculum and vitamin-mineral supplementation  
(1 tablespoon/calf/day)
  - b. **ISOLITE** (½ tsp/100 lb calf) ..... provides sulfathiazole treatment for scours and pneumonia plus vitamins and minerals for 3 days free choice
  - c. Water .....
4. Second Feeding:
  - a. **FEED-MATE CALF/VEAL** ..... intestinal inoculant
  - b. **ISOLITE** (½ tsp/100 lb calf)
  - c. Regular scheduled milk replacer

Milk replacers containing milk and/or milk products are preferred over vegetable based replacers.

## BO-BAC 2X PROGRAM — Day 2

1. **BO-BAC 2X** ..... immune-serum for prevention of scours and pneumonia or as a treatment for sick calves  
(15cc/50 lb calf prevention)  
(30cc/50 lb calf treatment)
2. **BAR SOMNUS-2P** (2cc IM) ..... protection against *Haemophilus somnus* disease and Pasteurellosis
3. **C & D TOXOID** (5cc SUB Q) ..... prevention of "overeating disease" or "sudden death"
4. Levamisole Phosphate Wormer ..... injectable internal parasite control
5. **FEED-MATE** ..... continued
6. **ISOLITE** ..... continued

## Day 3 to Slaughter

1. Continue **FEED-MATE CALF/VEAL** as scheduled, reduce to 1 tsp/calf/day at Day 14.
2. Monitor calves' health, take temperatures daily, treat accordingly.
3. Discontinue **ISOLITE** after Day 3.

## Day 9

1. **BAR SOMNUS-2P** ..... booster

## Day 21

1. **IBR-PI<sub>3</sub>/BAR SOMNUS-2P or BAR-2 SOMNUS** ..... Viral pneumonia protection (Rednose), *Haemophilus somnus* disease and Pasteurellosis boosters
2. **C & D TOXOID** ..... booster
3. **VITAMIN ADB<sub>12</sub>** ..... vitamin supplement

## Alternate Day 2 Program

1. **IBR-PI<sub>3</sub>/BAR SOMNUS-2P or BAR-2 SOMNUS** ..... Viral pneumonia protection (Rednose) and protection against *Haemophilus somnus* disease and Pasteurellosis
2. **C & D TOXOID** ..... prevention of "overeating disease" or "sudden death"
3. Levamisole Phosphate Wormer ..... injectable internal parasite control
4. **FEED-MATE** ..... continued
5. **ISOLITE** ..... continued

## Day 3 to Slaughter

1. Continue **FEED-MATE CALF/VEAL** as scheduled, reduce to 1 tsp/calf/day at Day 14.
2. Monitor health, take temperatures daily, treat accordingly.
3. Discontinue **ISOLITE** after Day 3.

## Day 9

1. **BAR SOMNUS-2P or BAR-2 SOMNUS** ..... booster

## Day 14

1. **BVD (optional)** ..... virus diarrhea protection
2. Reduce **FEED-MATE CALF/VEAL** to 1 tsp/calf/day.

## Day 21

1. **BAR SOMNUS-2P** ..... booster
2. **C & D TOXOID** ..... booster
3. **VITAMIN ADB<sub>12</sub>** ..... vitamin supplementation

# ANCHOR SWINE HEALTH PROGRAM



As recommended by Anchor Professional Services

## Sows and Gilts

### 2 to 4 weeks before breeding or at weaning:

- |                                   |                    |
|-----------------------------------|--------------------|
| 1. LEPTO-5 (2cc IM) .....         | Lepto abortions    |
| 2. VITAMIN A-D 500 (1cc IM) ..... | A-D vitamin levels |

#### 3. SWINE PRE-MIX w/FEED-MATE

(5 lb/T in ration) ..... flushing

Flush with high energy, high protein and antibiotic in feed 2 weeks before and during breeding.

### 4 to 6 weeks before farrowing:

- |  |                                 |
|--|---------------------------------|
| 1. ERY-MUNE AVE or HYDROVAC or ERY-MUNE AVE/LEPTO 5 or ERY-MUNE-C® (2cc) ..... | erysipelas colostrum antibodies |
|--|---------------------------------|

#### 2. Bar-Vac® CD/T or TYPE C&D TOXOID

(5cc SQ) ..... enterotoxemia

- |                                   |                    |
|-----------------------------------|--------------------|
| 3. VITAMIN A-D 500 (1cc IM) ..... | A-D vitamin levels |
|-----------------------------------|--------------------|

#### 4. PIPERAZINE .....

worms

#### 5. MANGE & LOUSE SPRAY (1 qt/60 gal water) .....

external parasites

#### 6. FERRO-TREET® .....

1 oz/sow/day

### When placing in farrowing unit:

- |  |               |
|--|---------------|
| 1. GENERAL DISINFECTANT (5 oz/5 gal water) ..... | sanitize unit |
|--|---------------|

#### 2. GENERAL DISINFECTANT (1 oz/1 gal water) .....

scrub sows

#### 3. SWINE PRE-MIX w/FEED-MATE

(5 lb/T in ration) ..... improved nutrition and intestinal inoculant

Feed bulky, low-energy ration 5 days before farrowing.

### After farrowing:

- |                                  |                   |
|----------------------------------|-------------------|
| 1. UTERINE CARE (infusion) ..... | cleans out uterus |
|----------------------------------|-------------------|

#### 2. OXY-TET (3mg/lb IM) .....

antibiotic to pigs through milk

#### 3. SWINE PRE-MIX w/FEED-MATE

(5 lb/T in ration) ..... improved nutrition and intestinal inoculant

Keep on bulky, low-energy ration first few days. Gradually increase to full energy by 7 to 10 days.

## Pigs

### First day:

- |                              |                 |
|------------------------------|-----------------|
| 1. GENTLE IODINE SPRAY ..... | navel infection |
|------------------------------|-----------------|

#### 2. ERY-SERUM (2.5cc SQ) .....

erysipelas

#### 3. C & D ANTITOXIN (2cc SQ or by mouth) .....

sudden death

#### 4. FEED-MATE 68® Soluble .....

1/2 teaspoon per pig

Clip needle teeth, being careful not to damage jaw bone.

### Third day:

#### 1. FE-100 IRON or IRON DEXTRAN

INJECTION (1cc IM) ..... anemia

#### 2. VITAMIN B<sub>12</sub> (1/4-1/2cc IM) .....

B<sub>12</sub> vitamin levels

#### 3. FERRO-TREET® ORAL (1 cup/litter) .....

iron supplement

#### 4. FEED-MATE 68® Soluble (1 tbsp per litter) .....

top dress on FERRO-TREET®

#### 5. FEED-MATE PELLET/MIX .....

5 lbs/ton of pre-starter

Castrate — the earlier, the better.

### 4 to 6 weeks old (weaning):

- |                       |            |
|-----------------------|------------|
| 1. ERY-MUNE AVE ..... | erysipelas |
|-----------------------|------------|

#### 2. FEED-MATE 68® FEED MIX .....

5 lbs per ton of feed

#### 3. MANGE & LOUSE SPRAY

(1 qt/100 gal water) .....

lice

#### 4. PIPERAZINE .....

worms

### 8 weeks old:

- |   |            |
|---|------------|
| 1. HYDROVAC® or ERY-MUNE-C® (2cc) ..... | erysipelas |
|---|------------|

These recommendations are necessarily generalized. Specific programs must be tailored to your area and individual needs.

Be sure to read and follow all product label directions carefully.

For complete product descriptions and program details, see your Anchor Animal Health Supplier today.



# ANCHOR PUPPY HEALTH PROGRAM

As recommended by Anchor Professional Services



## AGE

3 weeks	<b>PUPPY VAC</b>	1 cc IM
6 weeks	<b>PARVO-VAC</b>	1 cc IM or Sub Q
9 weeks	<b>PARVO-VAC</b>	1 cc IM or Sub Q
12 weeks	<b>Rabies vaccine</b>	
14-16 weeks	<b>SOLO-JEC-5™</b> or <b>SOLO-JEC-6™</b>	1 cc IM or Sub Q

**Annual revaccination with SOLO-JEC-5™ and PARVO-VAC, or SOLO-JEC-6™ is strongly recommended. For revaccination of pregnant bitches use SOLO-JEC-L™.**

## WORMING

All puppies should be considered infested with hookworms, roundworms, or both. Many healthy, well nourished mature dogs may harbour a few worms (subclinical infection) and can serve directly or indirectly as a source of infection for puppies.

Puppies generally should be wormed at weaning and a repeat dose given in 12 to 14 days to eliminate worms that have matured since the first treatment.

Close attention should be paid to the condition of nursing puppies so as to be aware of worm infestation that may need treating before weaning. Acute anemia is characteristic of hookworm infection and is often fatal if not treated in time. Roundworms may produce less critical disease, but can become severe enough to interfere with nutrition and cause typical "potbelly". Some roundworm larvae also cause "creeping eruptions" in humans and are therefore a public health problem.

# ANCHOR ANIMAL HEALTH PRODUCTS

## AMINO-LITE Injectable

A sterile solution of amino acids, electrolytes and B-complex vitamins in a dextrose solution for use as an aid in the support of treatment of debilitated animals and supportive treatment in severe diarrhea and vomiting. Consult directions with product before using.

AVAILABLE IN: 500 cc and 1000 cc plastic bottle.

## AMINO-LITE 34X Injectable

Contains 34 times the concentration of amino acids as found in regular AMINO-LITE in a solution composed of electrolytes, B-complex vitamins, and dextrose. For use as nutritional support in animals weakened by stress or disease. Consult directions with product before using.

AVAILABLE IN: 250 cc and 500 cc bottles.



## AMINO-LITE BOLUS

A high-potency protein hydrolysate which furnishes amino acids as an aid in the rehabilitation and nutritional support of sick ruminants. Contains electrolytes, vitamins and minerals as well as quick energy sources. Consult directions with product before using.

AVAILABLE IN: Boxes of 50s.

## ANCHO-DINE

For the correction of iodine deficiency. Administer orally in feed, salt or drinking water. An expectorant in mild respiratory disorders. An aid in the prevention and control of foot rot caused by *Fusobacterium necrophorum*, and soft tissue infections (lumpy jaw) caused by *Actinobacillus lignieresii*. Economical prevention up to 2½ lb per 95 lbs of salt or ½ lb in 1000 gallons of water. Consult directions and warnings with product before using.

AVAILABLE IN: 1 lb plastic bag and 25 lb containers.

## ANCHO-DINE 40

Double strength for greater economy. Consult directions and warnings with product before using.

AVAILABLE IN: 25 lb containers.

## ANCOSUL 12.5% Concentrated Solution

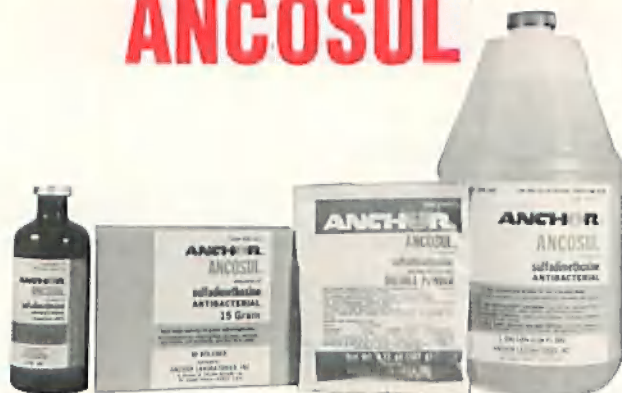
The ultimate in convenience for safe, effective sulfonamide therapy of poultry, turkeys, and cattle. One gallon prepares 256 gallons of medicated drinking water for chickens and 512 gallons for turkeys. One gallon treats forty-eight 400-lb cattle the first day or ninety-six 400-lb calves on succeeding days. Suitable for use with automatic proportioners. Avoids solubility problems found with some sulfa powders; yet both concentrate and medicated water have excellent stability. Read directions and warnings on product label before using.

AVAILABLE IN: plastic gallons.

1 cc = 1 ml

## ANCHOR ANIMAL HEALTH PRODUCTS

# ANCOSUL



Ancosul™ is the "up-to-date sulfa," highly effective against major disease-producing microorganisms at a low dosage level. It adds economy, convenience, and safety to treatment. Ancosul™ has been found to be effective in counteracting *Staphylococcus*, *Streptococcus*, *E. coli*, *Salmonella* and microorganisms that may be associated with pneumonia, calf diphtheria, foot rot, coccidiosis, fowl cholera, and infectious coryza in various types of livestock or poultry. Its wide range of disease coverage, lack of bacterial resistance, low dosage and four dosage forms give livestockmen and poultrymen a more professional, yet practical, product.

### SOLUBLE POWDER

One 107 gram (3.77 oz) pack goes a long way and maintains for one day a blood level in a group of animals totaling 7200 lbs in weight. For example, twelve 600-lb calves with shipping fever, or half that number the first day, can be treated with one pack. It may be used through a proportioner or mixed directly in the watering equipment for livestock and poultry. The label gives directions for preparation of a stock solution that may be added to the milk or replacer of calves. Refer to the water and feed consumption charts for additional help. Consult directions and warnings with product before using.

AVAILABLE IN: 3.77 oz. packet.

### BOLUS

Three sizes are available for more convenience with animals of different weights. Only one 15 gram bolus maintains a blood level in a 600-lb animal for a day. For calves, one 2.5 gram bolus per 100 lbs, and one 5 gram bolus per 200 lbs in larger calves initiates treatment. One-half the initial dose given every 24 hours maintains effective blood levels. The firm, easy to handle bolus dissolves readily in the digestive system to give a rapid, yet prolonged blood level. Compare the quick blood level, duration, and fewer number of Ancosul boluses required. Consult directions and warnings with product before using.

AVAILABLE IN: 2.5 g; 24's, 100's — 5 g; 50's — 15 g; 12's, 50's, 200's.

### INJECTION 40% SOLUTION (Intravenous)

Only 30 ml treats the average calf headed for the feed lot. For the larger cattle 60 to 75 ml is used. If treatment is needed on succeeding days, only one-half these amounts is needed per treatment. High blood levels are maintained because of less rapid elimination, yet milk withholding time for dairy cattle is only sixty hours after the last treatment. The package insert illustrates intravenous injection technique. Consult directions and warnings with product before using.

AVAILABLE IN: 250 cc vials.

1 cc = 1 ml



## ANCHOR ANIMAL HEALTH PRODUCTS

# Bar-Vac<sup>®</sup> PRODUCTS

The new trademark for a growing family of improved bacterins for prevention of *Clostridium* diseases. New concepts in controlled fermentation utilizing automatic sensing devices to monitor and adjust environmental conditions for optimum growth of antigenic material result in smaller, more uniform doses for minimizing vaccination time, labor, and stress. New combinations will be available as they are adapted to the new production methods. All BAR-VAC<sup>®</sup> products may be administered intramuscularly or subcutaneously.

## Bar-Vac<sup>®</sup> 7

**(*Clostridium chauvoei*-septicum-novyi-sordellii-perfringens Types C and D Bacterin-Toxoid)**

Anchor's BAR-VAC<sup>®</sup> 7 offers you broad protection against blackleg, malignant edema, novyi, sordellii, overeating disease and enterotoxemia. With just one 5 ml dose you can get "7-way" protection quickly, easily and economically.

BAR-VAC<sup>®</sup> 7 eliminates the need for multiple injections. It eliminates the mixing and other inconvenience, too. And that saves you time and labor.

BAR-VAC<sup>®</sup> 7 can be used with all ages of beef and dairy cattle, sheep and lambs. This versatility helps you manage a blackleg and sudden death preventive program more easily.

Recommended dosage of BAR-VAC<sup>®</sup> 7 is just 5 cc for cattle; 2.5 cc for sheep. Consult label for recommended booster dose.

AVAILABLE IN: 10 dose, 50 dose and 200 dose vials.



## Bar-Vac<sup>®</sup> 7/SOMNUS

**(*Clostridium chauvoei*-septicum-novyi-sordellii-perfringens Type C and D-Haemophilus somnus Bacterin-Toxoid)**

Eight-way protection with one product. Indicated for the immunization of cattle and sheep against blackleg, malignant edema, black disease, sordellii, overeating disease, enterotoxemia, and *Haemophilus somnus* complex. Use for healthy cattle of any age. Convenient, 5-ml dose. Administer IM. Consult label directions before using.

AVAILABLE IN: 10, 50, and 200 dose vials.



## Bar-Vac<sup>®</sup> CSNS

**(*Clostridium chauvoei*-septicum-novyi-sordellii Bacterin)**

Offers four-way protection against blackleg, malignant edema, novyi liver infection, and sordellii. Sordellii organisms frequently infect the briskets that are bruised on the feed bunk or stanchion. Eight-way protection is available by administering CSNS at the same time as *Cl. perfringens* C D Toxoid and Anchor's PASTEURELLA II Bacterin. Consult directions with product before using.

AVAILABLE IN: 10 dose, 50 dose, and 200 dose plastic vials.

1 cc = 1 ml



## ANCHOR ANIMAL HEALTH PRODUCTS

### **Bar-Vac® CSP** (Triple Bacterin)

(*Clostridium chauvoei*-septicum-Pasteurella  
*Haemolytica-multocida* Bacterin) 5 cc dose

New 5 cc dose provides high levels of protection against blackleg, malignant edema and two pasteurellas in one convenient combination product. Consult directions with product before using.

AVAILABLE IN: 10 dose and 50 dose plastic vials.

1 cc = 1 ml

### **Bar-Vac® CSN**

(*Clostridium chauvoei*-septicum-novyi Bacterin)

Three-way protection is achieved with BAR-VAC-CSN. Blackleg, malignant edema and novyi (Black disease) all can appear suddenly and cause death before treatment can be started. For that reason, protection by vaccination is imperative. A 5 ml dose for cattle and 2.5 ml for sheep is recommended. Boosters are advisable under certain conditions. Consult directions with product before using.

AVAILABLE IN: 10 dose and 50 dose plastic vials.

### **Bar-Vac® -H**

(*Clostridium haemolyticum* Bacterin)

For immunization of healthy cattle (5-ml dose) or sheep (2.5 ml-dose) against "Redwater Disease" or bacillary hemoglobinuria caused by *Clostridium haemolyticum*. Administer either IM or SQ. Consult label directions before using.

AVAILABLE IN: 10 dose and 50 dose vials.

### **Bar-Vac® CS** "Two-Way" Combination Product

(*Clostridium chauvoei*-septicum Bacterin) 2 ml dose

For prevention of blackleg and malignant edema. Consult directions with product before using.

AVAILABLE IN: 10 dose and 50 dose plastic vials.

### **Bar-Vac® CD/T**

(*Clostridium perfringens* Types C & D-Tetanus Toxoid)

Pure toxoid for immunization of healthy cattle, sheep, and swine. Use BAR VAC® CD/T to prevent sudden death syndrome associated with scours and overeating disease in calves, lambs, and baby pigs as well as tetanus in sheep and cattle. Most modern, exclusive combination for feeder lambs. Pure tetanus toxoid assures optimal protection against tetanus in sheep due to processing procedures such as docking and castration. Product of choice for dam. Consult directions with product before using.

AVAILABLE IN: 50 and 250 ml bottles

### **BAR 4®**

(Bovine Rhinotracheitis Parainfluenza<sub>3</sub> Vaccine, killed virus,  
*Pasteurella haemolytica-multocida* Bacterin)

Bar 4® is the safe, effective IBR, PI<sub>3</sub>, *Pasteurella* vaccine for cattle of all ages and stages of gestation. The viral and bacterial components are inactivated and safe for pregnant animals. After two initial 5 cc doses 14 to 28 days apart, one annual booster is all that is required to keep the disease resistance up. For continuous protection in calves, first vaccinated under six months of age, a 6 months' booster should be given. Respiratory infections can be reduced to a minimum in cattle on a Bar 4® program. Safer for stressed animals. Also reduces losses from pinkeye caused by IBR virus. No milk withdrawal. Consult directions with product before using.

AVAILABLE IN: 10 dose and 50 dose vials.

1 cc = 1 ml

## ANCHOR ANIMAL HEALTH PRODUCTS

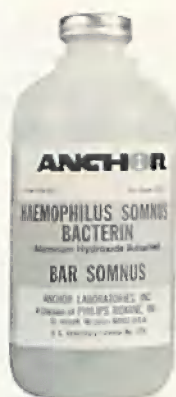
# BAR SOMNUS

(*Haemophilus somnus* Bacterin)

Bovine Respiratory Disease (formerly referred to as "Shipping Fever") is a complex problem involving many disease-causing viruses and bacteria. Now, a new major bacteria, *Haemophilus somnus*, contributing to this disease complex, has been isolated and developed as a vaccine. In addition to Bovine Respiratory Disease, *Haemophilus somnus* infection may appear as foot rot or lameness and a sudden death disease referred to as "Thrombo".

BAR SOMNUS should be a part of the total vaccination program for baby calves and feeder calves, as well as feedlot animals and dairy cows. The recommended dosage is 2 ml administered IM. Vaccination of pregnant cows is safe and has been of value in helping to prevent the disease in newborn calves. Milk withdrawal is not necessary. Consult label for complete directions.

AVAILABLE IN: 10 dose and 50 dose vials.



## BAR SOMNUS-2P

(*Haemophilus somnus*-*Pasteurella haemolytica*-*multocida* Bacterin)

Unique combination recommended for use in healthy cattle as an aid in the prevention of *H. somnus* complex and pasteurellosis. Convenient, 2-ml dose is administered IM. Use with Anchor virus vaccines. Consult label directions before using.

AVAILABLE IN: 10 dose and 50 dose vials.

## BAR-2 SOMNUS

(Bovine rhinotracheitis-parainfluenza<sub>3</sub> Vaccine; Killed virus-bovine tissue culture origin; *Haemophilus somnus* Bacterin)

Special protection for stale, stressed calves. Use in cattle to aid in the prevention of disease caused by bovine rhinotracheitis and parainfluenza<sub>3</sub> viruses and *Haemophilus somnus*. Safe to use with all beef and dairy animals including lactating cows and pregnant cows at any stage of gestation. No milk withdrawal. Non-transmissible (Can be given to calves running beside their pregnant dams.) Administer IM. Consult label directions before using.

AVAILABLE IN: 10 dose and 50 dose vials.

## BAR-4<sup>®</sup> SOMNUS

(Bovine rhinotracheitis-parainfluenza<sub>3</sub> killed virus vaccine and *Haemophilus somnus*-*Pasteurella haemolytica*-*multocida* Bacterin)

Exclusive, unique killed virus vaccine/bacterin combination provides broad protection against the major causes of bovine respiratory disease. Product of choice for stale, stressed calves. Bar-4<sup>®</sup> Somnus is safe to administer to all beef and dairy animals including lactating cows and pregnant cows at any stage of gestation. Product is non-transmissible. Can be given to all unweaned calves running beside their pregnant dam with no fear of abortion from virus vaccine shedding. Consult label directions before using.

AVAILABLE IN: 10 dose and 50 dose containers.

## BLOOD STOPPER

For all species. Control bleeding following dehorning. Promptly apply BLOOD STOPPER directly to the bleeding area. Consult directions with product before using.

AVAILABLE IN: 10 oz and 20 oz shaker top plastic bottle.

1 cc = 1 ml



# ANCHOR ANIMAL HEALTH PRODUCTS

## BLUE LOTION SPRAY

For use prior to surgical procedures such as castrating or docking, for disinfection of injection sites, for sores, minor cuts, bruises, abrasions, and for toughening foot pads of working dogs. Consult directions with product before using.

AVAILABLE IN: 10 oz aerosol.

## BO-BAC 2X

(*Escherichia coli*-*Pasteurella multocida*-*Salmonella typhimurium*-*Corynebacterium pyogenes* ANTISERUM, CONCENTRATE) (Bovine Isolates and Origin)

Now, in one-half the dosage volume, the combined benefits of HEM-SEP-C SERUM and BO-BAC SERUM in one concentrated product. So whether you plan to milk them or feed them . . . if you want to save them, hit 'em with BO-BAC 2X as soon as they drop. Just one shot of BO-BAC 2X given to a calf at birth helps protect against the scours/pneumonia complex associated with the organisms named. Cattle from whose blood the product is prepared also receive repeated injections of viruses of bovine rhinotracheitis, bovine virus diarrhea, and bovine parainfluenza<sub>3</sub>. As a treatment, BO-BAC 2X can be used alone or in combination with sulfas, antibiotics, and other drugs. Consult directions with product before using.

AVAILABLE IN: 250 cc plastic vials.



## CALDEX MP

Calcium gluconate, dextrose, magnesium and phosphorus, for treating milk fever. For best results, inject intravenously or intraperitoneally. Consult directions with product before using.

AVAILABLE IN: 500 cc plastic bottles.

## CALDEX MPK with POTASSIUM

For treatment of milk fever in dairy cows. Corrects lowered blood calcium associated with milk fever and provides additional magnesium, phosphorus, and potassium for the animal. Ready-to-use, stable solutions in adaptable, 600-ml plastic containers. Special hanger for easy suspension and administration. Consult label directions before using.

AVAILABLE IN: 500 ml packaged in 600-ml, plastic container.



## CALF SCOUR BOLUS (Neomycin)

Specially formulated for infectious calf scours. Contains neomycin (a wide-use antibiotic) in an attapulgit and pectin vehicle. Administer orally. Packaged in non-breakable containers. Consult directions and warnings with product before using.

AVAILABLE IN: Jars of 25's and 85's.

## CALF SCOUR FORMULA (Liquid)

This new, improved formulation contains neomycin for the treatment of infectious calf scours. A free dose syringe is included with CALF SCOUR FORMULA Liquid. Consult directions and warnings with product before using.

AVAILABLE IN: One gallon containers.

1 cc = 1 ml

# ANCHOR ANIMAL HEALTH PRODUCTS

## CALF SCOUR BUCKET MIX

When calf scours hits, effective treatment and maintenance of nutrition are both important. Calf Scour Bucket Mix is designed to provide both. With milk products as a nutritional base, the active drug components in Anchor Calf Scour Bucket Mix include oxytetracycline hydrochloride for pneumonia and systemic infections, and neomycin sulfate to counteract bacteria in the intestines. The vitamins and protein help build natural resistance while the antibiotics fight infection. One 4-oz cup of Calf Scour Bucket Mix at each feeding for the treatment period rather than the usual milk replacer — eliminates mixing — adds convenience and effectiveness to this product. Read product label for complete feeding directions.

AVAILABLE IN: 4.5 lb bucket, 4 oz measurer cup included.

## CALF & PIG SCOUR POWDER (Concentrated)

For optimum results in scour and pneumonia control, as an additive to milk or milk replacer, use Anchor Calf & Pig Scour Powder. This concentrated formula requires only one-half ounce per gallon of liquid for prevention, and one ounce per gallon for treatment. The formula is ideal for the individual who wants to keep calves on their regular feed during the treatment period. Formulated with oxytetracycline hydrochloride to counteract pneumonia and systemic infection; neomycin sulfate to control bacteria in the intestines; and with a wide variety of essential vitamins and minerals. Nutrition is supported while bacteria are being controlled. Read product label for complete feeding directions.

AVAILABLE IN: 3.5 lb and 25 lb pails.

## CANINE WORMER (3-way wormer)

"2.5" - "5" - "10" - "25" - "40"

NUMBER INDICATES THE NUMBER OF POUNDS OF BODY WEIGHT ONE CAPSULE WILL TREAT.

For use as an aid in removal of ascarids (a type of roundworm), hookworms, and tapeworms. For dogs and cats. Consult directions with product before using.

AVAILABLE IN: No. 2.5, 12's; No. 5, 6's, 100's; No. 10, 6's, 100's; No. 25, 4's, 50's; No. 40, 3's, 25's.



## CHAPLESS TEAT DIP (Concentrate)

(With Chlorhexidine 2% and Glycerin)

For use in preparing an 0.5% solution for dipping teats as an aid in controlling mastitis-causing bacteria on teat surface. 32 ounces of 2% concentrate makes one gallon of teat dip. Consult directions with product before using.

AVAILABLE IN: Plastic one gallon jugs.

## CHAPLESS TEAT DIP

(Ready-to-Use 0.5% with Glycerin)

A convenient ready-to-use teat dip solution of 0.5% chlorhexidine for aid in control of mastitis. Glycerin is also added to aid teat tissue healing and to assist in keeping the teats soft and pliable. Highly effective, yet nonstaining and odorless solution.

AVAILABLE IN: 2.5 gal and 15 gal containers.

1 cc = 1 ml





# ANCHOR ANIMAL HEALTH PRODUCTS

## CHAPLESS UDDER CREAM

(Antiseptic and Bactericidal Chlorhexidine Cream)

An emollient penetrating cream for use on chapped teats and udders, superficial cuts, abrasions, minor burns, and bruises. Also as an aid in controlling mastitis-causing organisms on teats and udders. Read product label for complete directions and cautions.

AVAILABLE IN: 14 oz plastic jars and 4.4 lb plastic pails.

## COMBINATION ANTIBIOTIC

(Penicillin - Dihydrostreptomycin Sulfate Solution)

Contains 200,000 IU Procaine Penicillin G in combination with 0.25 gm dihydrostreptomycin sulfate per cc. A broad-spectrum antibiotic combination for treating bacterial diseases. Consult directions and warnings with product before using.

AVAILABLE IN: 100 cc and 250 cc vials.

## CCS BACTERIN

(Clostridium chauvoei-septicum Bacterin)

Provides active immunity and protection against blackleg and malignant edema. Comes in 5-ml dose. Consult directions with product before using.

AVAILABLE IN: 50 ml and 200 ml bottles.

## C & D ANTITOXIN

(Clostridium perfringens Type C & D Antitoxin, Equine Origin)

Contains antitoxins against sudden death syndrome and related scours caused by *Cl. perfringens*. Use for treatment or for rapid, temporary prevention. Calves: 10-20 cc; cattle 30-60 cc; lambs 3-6 cc; sheep 10-20 cc injected subcutaneously or intravenously; baby pigs 2 cc given by mouth or injected subcutaneously, for treatment increase dosage 100%. Consult directions with product before using.

AVAILABLE IN: 250 cc plastic vials.



## C & D TOXOID

(Clostridium perfringens Type C and D Toxoid)

New and improved pure toxoid for the active immunization of cattle, sheep and pigs against necrotic enteritis caused by *Cl. perfringens* type C and against enterotoxemia (overeating disease) caused by *Cl. perfringens* type D. Dose for cattle and sows 5 cc; sheep 2 cc, subcutaneously. Safe for pregnant animals. No milk withdrawal. Consult directions with product before using.

AVAILABLE IN: 50 cc and 250 cc plastic vials.

**Methoxychlor & Malathion**

## DAIRY CATTLE DUST

Contains Methoxychlor and Malathion for a dust application on dairy animals, beef cattle, hogs and sheep. How-to-use: Dust animal and rub in lightly beneath hair. Dust gun can be used. Begin dusting in the spring when insects first appear. Pests controlled: Horn flies, lice, fleas, ticks, mites. Safe for pregnant animals. No milk withdrawal. See label for complete cautions and directions.

AVAILABLE IN: 2 lb shaker can, 5 lb bag.



1 cc = 1 ml

# ANCHOR ANIMAL HEALTH PRODUCTS

## Ciodrin & Vapona

### DAIRY & LIVESTOCK SPRAY

For use as pest control agent with long residual action on dairy and beef cattle. How-to-use: Can be used to spray livestock or as a residual premise spray, coating eaves and barn walls (including dairy barns) and fences. Pests controlled: horn flies, stable flies, face flies, house flies, lice and lone star ticks on lactating dairy cattle, beef cattle, sheep, goats and hogs. Safe for pregnant cows. No milk withdrawal. See label for complete cautions and directions.

AVAILABLE IN: quarts and gallons.

### DAIRY FLY AEROSOL

(Pyrethrins 0.5%; piperonyl butoxide 5.0%)

Highly-effective insecticide approved for direct application on beef and lactating cattle to kill and repel labeled biting and non-biting flies, mosquitoes, and gnats. Also can be used as a premise spray in animal quarters and milk rooms for rapid control of house flies, mosquitoes, gnats, wasps, and moths. Convenient, versatile. Consult label directions before using.

AVAILABLE IN: 2 lb aerosol can.



### DEHORN PASTE

An adhesive caustic for destroying horn-forming tissue in calves. Apply to horn buttons when they can be felt under the skin and before they come through. Avoid setback later in life by applying DEHORN PASTE while the calves are young and easy to handle (first week of life is recommended). Easy to use plastic dispenser. Consult directions with product before using.

AVAILABLE IN: 90 gm applicator bottle.

### DISINFECTANT, GENERAL (Gentle Iodine Complex)

A broad-spectrum, multi-purpose sanitizer, and germicide. It can also be used as a premise disinfectant and sanitizer of barns, stalls, poultry houses, etc. It kills bacteria, viruses, fungi, and spores. It is effective at both high and low temperatures. Consult directions with product before using.

AVAILABLE IN: One gallon plastic containers.

### DOG DIP AND SPRAY (Lindane)

Control of dog parasites (lice, fleas, ticks, and sarcoptic mange mites.) Versatile—spray may be used as a dog dip or kennel spray. Economical with a dilution rate of 8 oz of dip/28 gal of water. Consult label directions before using.

AVAILABLE IN: 8 oz bottle.

1 cc = 1 ml





# ANCHOR ANIMAL HEALTH PRODUCTS

## DERMA-SECT SHAMPOO (Insecticidal)

A formulation that aids in desnarling the coat. Lanolin content softens and adds sheen to the coat. DERMA-SECT SHAMPOO contains special ingredients that control fleas and lice. Consult directions with product before using.

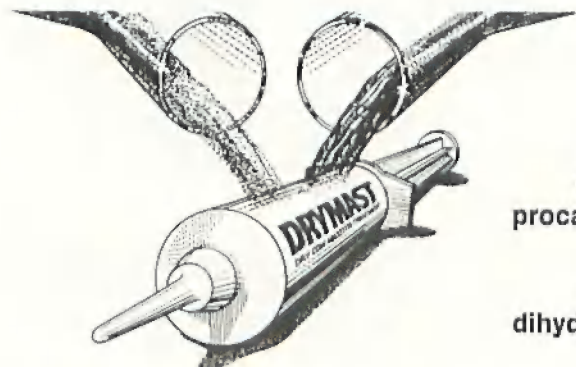
AVAILABLE IN: 8 oz and one gallon plastic containers.

## DEXTROSE SOLUTION 50% (Injection)

For a rapid source of blood sugar in the treatment of ketosis of cattle and as a source of nourishment in diseased animals. Administer 100 to 500 cc, depending on condition. Consult label directions before use.

AVAILABLE IN: 500 cc plastic bottles.

# DRY-MAST<sup>®</sup>



(200,000 IU  
procaine penicillin G  
and  
300 mg of  
dihydrostreptomycin)

A new, dry cow treatment for subclinical mastitis available without a prescription from animal health suppliers. Dry-Mast<sup>®</sup> combines the action of two powerful antibiotics, procaine penicillin G and dihydrostreptomycin, for proven effectiveness against infections caused by *Streptococcus agalactiae* and *Staphylococcus aureus*, including penicillin-sensitive and penicillin-resistant strains. Dry-Mast<sup>®</sup> has passed new, strict FDA requirements and can prove cows treated six weeks before calving have no antibiotic residues in milk 24 hours after calving. The 24-hour milk withholding means that cows can get back into production 2 to 3 milkings faster than is possible with other products which require a 72-96 hour withdrawal. Consult label directions before using.

AVAILABLE IN: 12 syringes/box

## EAR OINTMENT (Topical Ointment)

An ointment for use as an aid in the treatment of certain ear and skin infections, ear canker, eczema, burns, and cuts. For use on dogs and cats. Consult directions with product before using.

AVAILABLE IN: 5 gm syringe.

1 cc = 1 ml

# ANCHOR ANIMAL HEALTH PRODUCTS

## EPINEPHRINE

Epinephrine is for emergency use in the event of shock that may follow injury or the rare sensitivity to an injected product. Easy to administer, Epinephrine is kept on hand by alert livestockmen whenever injectable drugs or vaccines are being administered. Consult label directions before using.

AVAILABLE IN: 10 cc vials.

## ERY-MUNE C<sup>®</sup>

(Erysipelas Bacterin Concentrate)

ERY-MUNE C<sup>®</sup> with its 2 cc dose offers an economical alternative for erysipelas vaccination. Safe for pregnant animals. Consult directions with product before using.

AVAILABLE IN: 10 dose, 50 dose, 125 dose and 250 dose plastic vials.

## ERY-SERUM

(Anti-Swine Erysipelas Serum)

For treatment of erysipelas infections and for producing immediate temporary immunity to erysipelas. For Prevention: Pigs up to 25 lb. — 2½ cc; 25 to 50 lb. — 5 cc; 50 to 75 lb. — 7½ cc; 75 to 100 lb. — 10 cc; over 100 lb. — 20 cc. For treatment: double the above dose. Safe for pregnant animals. Consult directions with product before using.

AVAILABLE IN: 250 cc plastic vials.

## ERY-MUNE-AVE<sup>™</sup>

(Erysipelas Vaccine, Avirulent Live-Injectable)

ERY-MUNE-AVE<sup>™</sup> is a professional product utilizing the most current immunization techniques available. It is designed for use in swine of all ages including pregnant sows and gilts. Immunity develops within 6 days compared with 14-21 days for killed bacterins. No booster dose is required. ERY-MUNE-AVE<sup>™</sup> can be injected intramuscularly or subcutaneously. The product contains no equine serum that can cause a shock reaction. The dose for all ages of swine is 2 cc. Pigs should be vaccinated at 4 weeks of age. Sows should be vaccinated prior to each farrowing. Consult label for complete directions.

AVAILABLE IN: 10 dose and 50 dose packages.

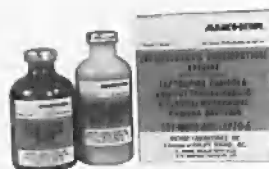
## ERY-MUNE-AVE/LEPTO 5<sup>™</sup>

(Avirulent Injectable Erysipelas Vaccine-Leptospira canicola-grippotyphosa-hardjo-icterohaemorrhagiae-pomona Bacterin)

Product of choice for breeding stock (replacement sows and boars). Provides complete protection against erysipelas in just six days. Also protects against five leptospirosis-causing organisms. Safe, reliable product for swine of all ages including pregnant sows and gilts. Consult label for complete instructions.

AVAILABLE IN: 10 dose and 25 dose packages.

1 cc = 1 ml



# ANCHOR ANIMAL HEALTH PRODUCTS

## FELIN-TC® (Feline Panleukopenia Vaccine)

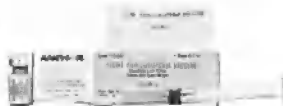
Modified live virus vaccine to protect healthy cats and kittens against feline panleukopenia, also known as distemper or enteritis. The 1 cc dose can be administered SubQ or IM. Caution: Do Not vaccinate pregnant queens. Consult directions before using.

AVAILABLE IN: Single dose vials complete with syringe.

## FELIN-L

(Feline Panleukopenia Vaccine; modified live virus-feline cell line origin)

The most versatile feline distemper vaccine available. May be given IM, SQ, or in the eyes and nose. Non-transmissible. Can be used with healthy, susceptible cats of any age. Small, 1/2-ml dose of liquid product permits ease of administration. No mixing necessary. Consult label directions before using.



AVAILABLE IN: 1 dose single pak with syringe.

## FEN-ARSENATE® DRENCH

Activated Micro-Fine (Purified)

The small particle size and the removal of certain undesirable impurities enhance the worming effectiveness of this phenothiazine product. Recommended for economical worming of sheep and goats. FEN-ARSENATE also contains lead arsenate. Consult directions and warnings with product before using.

AVAILABLE IN: One gallon containers.

## FE-100 (Iron Dextran Injection)

A 1 cc dose supplies 100 mg of elemental iron for baby pigs. A product for the prevention of baby pig anemia. Consult directions with product before using.

AVAILABLE IN: 100 cc vials.

## IRON DEXTRAN INJECTION (Iron Dextran Injection)

A complex of dextran iron which furnishes 100 mg of iron per ml for the prevention and treatment of anemia in baby pigs. Consult directions with product before using.

AVAILABLE IN: 100 cc vials

## FERRO-TREET®

("Eating Iron" for Pigs)

FERRO-TREET provides oral iron in the form best utilized by baby pigs. Gut irritation and delayed absorption are eliminated with FERRO-TREET. Highly palatable FERRO-TREET gets pigs on feed at the earliest possible date when you sprinkle 1 1/2 oz. of it per litter over the starter ration every three days. Provides iron and gets pigs on feed fast with FERRO-TREET. Consult directions with product before using.

AVAILABLE IN: 5 lb and 12 1/2 lb plastic bags.

1 cc = 1 ml



ANCHOR ANIMAL HEALTH PRODUCTS

# THE FEED-MATE® FAMILY



The FEED-MATE® family of products represents a new concept, that of maintaining a favorable environment in the intestinal tract. This favorable environment can be accomplished without problems of tissue or milk drug residues or problems of drug failure occurring when scours-producing organisms in the gut become drug-resistant. Since FEED-MATE® products are not drugs or antibiotics, they leave no residues nor do they create any problems of milk withholding.

FEED-MATE® products contain selected strains of harmless, living bacteria which help provide great populations of beneficial organisms to maintain a favorable environment in the gastro-intestinal system.

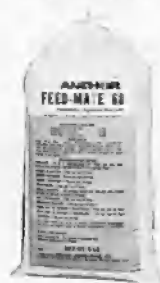
FEED-MATE® products contain living bacteria in freeze-dried "pure culture" form as stable preparations having maximum livability. When fed, these bacterial inoculants activate, reproduce rapidly and colonize the gut becoming part of the animal's system of resistance. These inoculant cultures enhance a climate favoring good digestion and absorption of nutrients which is, at the same time, unfavorable to the growth of harmful organisms. Consult complete directions with product before using.

## FEED-MATE 68® Soluble (Bacterial gastro-intestinal inoculant)

An alternative to low-level antibiotic feeding for improvement in rumen and intestinal tract environment and performance. Add to milk or non-medicated feed or milk replacer. Contains no drug or antibiotics. May be added to colostrum or surplus milk. An all-natural product — contains 2 species of friendly organisms.

AVAILABLE IN: 5 lb plastic bags.

1 cc = 1 ml



# ANCHOR ANIMAL HEALTH PRODUCTS

## FEED-MATE 68® FEED MIX

(Bacterial gastro-intestinal inoculant)

Same as FEED-MATE 68® Soluble above except presented on a carrier suitable for use in non-medicated feeds.

AVAILABLE IN: 40-lb bags.

## FEED-MATE RUMINANT

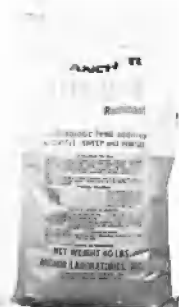
(Bacterial/multi-enzyme  
rumen/intestinal inoculant)

Modern livestock management practices, though profitable, often result in disturbances or losses of essential digestive bacteria in the rumen and intestinal tract.

The environment within the rumen and intestinal tract is directly related to appetite.

Immediate and continuous inoculation of this system with the selected species and strains of bacteria and rich supply of enzymes in FEED-MATE® Ruminant is convenient with this feed additive.

AVAILABLE IN: 40-lb bags.



## FEED-MATE Calf/Veal

(Bacterial digestive inoculant with vitamins  
and minerals. Antibiotic-resistant)

Soluble for easy administration in milk, milk replacer or drench for calves, pigs, lambs, kids and foals. Inoculates the rumen/intestinal tract as a starter culture of selected strains of "friendly organisms" — a reasonable alternative to antibiotics. Natural — no residues.

AVAILABLE IN: 4-lb and 25-lb pails.



## FEED-MATE CRUMBLES

(Bacterial rumen/intestinal inoculant with vitamins and  
minerals in convenient crumbles feeding form)

An alternative to feeding low-level antibiotics for maintenance of optimal bacterial balance within the stomach and intestinal tract. Contains a rich supply of trace minerals in chelated form for improved availability plus key vitamins in generous quantity.

Special flavoring agents encourage feed consumption.

AVAILABLE IN: 40-lb bags.

## FEED-MATE EQUINE

Especially designed bacterial inoculant and nutrient complex for all horses to help maintain the digestive tract's balance of beneficial bacterial systems so important to normal function. Nutrient superiority is assured by the carefully selected and potent constituents in proper ratio and concentration. Consult label copy for complete indications and usage.

AVAILABLE IN: 6 lb and 20 lb plastic pails.

1 cc = 1 ml





## ANCHOR ANIMAL HEALTH PRODUCTS



### DUST BAG KIT

(Co-Ral 1% or Rabon 3%)

The Flip-Top Dust Bag containing either Co-Ral or Rabon is used for continuous control of horn flies and lice on beef and lactating dairy cattle through self application. The bag features: top loading with no mess, steel hanger bar for strength, vinyl impregnated canvas to withstand moisture and heavy use, rope-protected edges, polyliner that will not easily wear out, plus a flicker chamber for dusting timid animals. Approved for use with lactating dairy animals.

AVAILABLE AS: Kit containing bag with rope, and 12½ lb of insecticide dust.



#### Co-Ral or Rabon

### FLY & LOUSE DUST (Cartridge)

Choice of Co-Ral® or Rabon® for control of horn flies and lice on dairy and beef cattle. How to use: For direct application on the backs of cattle or may be applied through the refillable FLIP TOP DUST BAG. See label for complete cautions and directions.

AVAILABLE IN: 12½ lb plastic bag.

### FLEA, LICE, AND TICK AEROSOL (Contains Sevin\* and pyrethrin)

An aerosol spray to rid all pets of fleas, lice and ticks. A formulation containing Sevin and pyrethrins; this product is an aid in controlling the hard-to-kill brown dog tick and spinose ear tick, as well as many other external parasites. Consult directions with product before using.

AVAILABLE IN: 11 oz aerosol.



### FLEA, LICE, AND TICK POWDER (5% Sevin\* and pyrethrin)

A free flowing powder — easy to use plastic squeeze bottle. Use also in living quarters for residual control. For the same use as FLEA, LICE AND TICK AEROSOL. Consult directions with product before using.

AVAILABLE IN: 6 oz plastic shaker top containers.

\*Trademark of Union Carbide Corp. for 1-naphthyl-N-methylcarbamate

### GENTLE IODINE SPRAY

A topical antiseptic for disinfection of skin and superficial wounds. Also to apply to navels at birth to reduce disease and entry of bacteria. Consult directions before using.

AVAILABLE IN: 16 oz spray bottle and one gallon containers.

1 cc = 1 ml





# ANCHOR ANIMAL HEALTH PRODUCTS

## Trichlorfon

### GRUB POUR-ON CATTLE INSECTICIDE

Contains Trichlorfon for control of cattle grubs and lice infestation. Easy to use, just pour it on. No mixing or diluting. It penetrates readily through the hair-coat with a minimum of run-off. May be used on beef or non-lactating dairy cattle. How-to-use: Pour along mid-line of the back of each animal from the shoulder to the tail head according to directions on label. See label for complete cautions and directions.

AVAILABLE IN: gallons.

### HORSE SPRAY & RUB-ON

(Pyrethrins 0.5% ; piperonyl butoxide 5.0%)

Formulated specifically for use as a pest control agent for horse and pony show stock. How-to-use: Can be used as a "wipe-on" to the coat or as a spray solution for fogging the animal. Can also be used to treat stables and adjacent areas. Pests controlled: horn flies, stable flies, deer flies, face flies, horse flies, mosquitoes and gnats. See label for complete cautions and directions.

AVAILABLE IN: quarts (FREE spray applicator w/each quart), gallons.



### HYDRO-LITE

An easy to use, economical drinking-water treatment for the replacement of electrolytes lost from the tissue cells through dehydration due to shrink and diarrhea. Additional therapy may be necessary to treat the primary cause of dehydration — for example: infection. One pound package medicates 160 gallons of drinking water for cattle, swine, and sheep. For poultry one pound treats 480 gallons of water. Hydro-Lite may be used through proportioners or in feed. Hydro-Lite is ideally suited to mix with antibiotic sulfas or to be used in hot weather. Consult label copy for complete directions and usage. Consult directions with product before using.

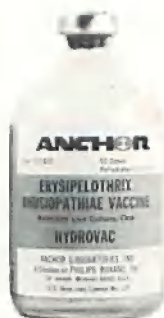
AVAILABLE IN: 1 lb plastic bags.

### HYDROVAC<sup>®</sup> Erysipelas Vaccine

(Oral — drinking water or drench with syringe)

HYDROVAC is whole-herd swine erysipelas protection you just pour into their drinking water. No catching, lifting, handling, or stress. Just add HYDROVAC to the water and they'll drink the protection they need. HYDROVAC is an avirulent live culture. The very first dose delivers prompt rapid levels of immunity that are well established by the seventh day after administration. A booster dose 2 to 4 weeks prior to farrowing will enhance immunity in the newborn pigs. Safe for pregnant animals. Consult directions with product before using.

AVAILABLE IN: 10 dose and 50 dose vials.



### IODINE TINCTURE (Strong)

For cuts, abrasions, insect bites or bruises, cleanse with soap and water; apply lightly once daily. Also excellent to paint navels at birth to reduce disease and bacteria entry at the vital point. Consult directions with product before using.

AVAILABLE IN: pints and gallons.

1 cc = 1 ml

## ANCHOR ANIMAL HEALTH PRODUCTS

# CATTLE VIRUS VACCINE-BACTERIN COMBINATIONS

When animals are stressed, they are a prime target for infection. Handling, crowding, weaning, changing weather, or several days off-feed can all be stressful for your animals and can contribute to severe losses due to infection. The disease-causing organisms which usually strike your stock when they are most stressed include IBR, BVD, and PI<sub>3</sub>; viruses as well as the bacteria *Pasteurella multocida*, *Pasteurella haemolyticum*, and *Haemophilus somnus*. Sometimes these viruses and bacteria act alone; sometimes they work together in complex combinations.

IBR is most often connected with upper respiratory tract infections and calf abortions. PI<sub>3</sub> opens the door for secondary bacterial invasion and pneumonia. BVD causes a disease with fever, diarrhea, and dehydration, while *Pasteurella multocida-haemolyticum* are responsible for pasteurellosis (shipping fever). *H. somnus* is now linked to "thrombo;" arthritic joints; acute, non-responsive pneumonia; and reproductive disorders including abortion, early fetal death, and chronic uterine infection.

Whatever the combination, these disease-causing organisms spread rapidly to strike your cattle when they are most vulnerable. This results in time off-feed, weight loss, and money for treatment. Good livestock managers will protect their animals, especially the most stressed, susceptible ones. Anchor provides many virus vaccine-bacterin combinations to give you dosage flexibility to deal easily with these multiple threats.

### IBR/BAR SOMNUS-2P

(Bovine Rhinotracheitis Vaccine; *Haemophilus somnus*-*Pasteurella haemolytica-multocida* Bacterin)

AVAILABLE IN: 10 dose and 50 dose vials.

### IBR-BVD/BAR SOMNUS-2P

(Bovine Rhinotracheitis-Virus Diarrhea Vaccine; *Haemophilus somnus*-*Pasteurella haemolytica-multocida* Bacterin)

AVAILABLE IN: 10 dose and 50 dose vials.

### IBR-BVD-PI<sub>3</sub>/BAR SOMNUS-2P

(Bovine Rhinotracheitis-Virus Diarrhea-Parainfluenza<sub>3</sub> Vaccine; *Haemophilus somnus*-*Pasteurella haemolytica-multocida* Bacterin)

AVAILABLE IN: 5, 10, and 50 dose vials.

### IBR-PI<sub>3</sub>/BAR SOMNUS-2P

(Bovine Rhinotracheitis-Parainfluenza<sub>3</sub> Vaccine; *Haemophilus somnus*-*Pasteurella haemolytica-multocida* Bacterin)

AVAILABLE IN: 10 dose and 50 dose vials.

### IBR-BVD-PI<sub>3</sub>/LEPTO-5

(Bovine Rhinotracheitis-Virus Diarrhea-Parainfluenza<sub>3</sub> Vaccine; *Leptospira canicola-grippotyphosa-hardjo-icterohaemorrhagiae-pomona* Bacterin)

An Anchor vaccine-bacterin combination especially developed for use with dairy herds. Use IBR-BVD-PI<sub>3</sub> Lepto-5 with open cows to prevent abortion problems caused by common viral or leptospiral organisms. Protects against infections caused by IBR, BVD, PI<sub>3</sub>, and five strains of *Leptospira*. Consult directions with product before using.

AVAILABLE IN: 5, 10, and 50 dose vials.

1 cc = 1 ml



# ANCHOR ANIMAL HEALTH PRODUCTS

## IRON DEXTRAN INJECTION (See page 63)

### ISOLITE

Pneumonia, scours, foot rot, mastitis and uterine infections caused primarily by bacteria or infection secondary to IBR, BVD and PI<sub>3</sub> viruses can respond favorably to treatment with Isolite. Treatment for 3 to 5 consecutive days is easy by drinking water or as a feed additive. Individual cows may be drenched with a solution of Isolite when herd treatment is impractical. Besides the "sulfa" action against bacteria, Isolite helps re-establish fluid balance and speeds recovery. With sulfathiazole, electrolytes, organic iodide and Vitamins A & D, Isolite gives a more complete action. It is especially recommended to control flare-ups in newly shipped-in animals and to keep down bacterial activity at vaccination time. The label gives withholding instructions for food producing animals. One pound treats approximately 5,000 to 6,000 lbs of body weight per day. For example, 10 five hundred to six hundred pound calves or 100 fifty to sixty pound shoats. Consult directions and warnings with product before using.

AVAILABLE IN: 1 lb plastic bag.

### KETOSIS CURE

Propylene glycol base used as drench or on feed to prevent or treat ketosis (acetoneemia). Supplies source of energy for metabolism. As a preventive it supplies the needed liver glycogen. Consult directions with product before using.

AVAILABLE IN: gallons.

### LEPTOCON

(*Leptospira pomona* Bacterin Concentrated)

Leptocon, in the convenient 2 cc dose, is safely inactivated, and is capable of conferring immunity without risk of producing leptospirosis. It may be used in healthy herds as a preventive, or in an infected herd to give added herd protection. Booster vaccination prior to each pregnancy has proven to give the most adequate protection. Safe for pregnant animals. No milk withdrawal. Consult directions with product before using.

AVAILABLE IN: 10 and 50 dose plastic vials.

## LEPTO-5

(*Leptospira pomona*, *grippotyphosa*, *hardjo*, *canicola* — *icterohaemorrhagiae* Bacterin)

Offers protection from five major types of lepto in one convenient preventive vaccine. Lepto occurs in all livestock breeds, in all age groups and in both sexes. Since leptospira are shed in the urine and are spread through contaminated water and feed, it is extremely difficult to control once animals are infected. Many wild animals, including deer, skunks, coyotes, raccoons, and rats are infected and contaminate water and feed.

Breeding cattle and swine should be vaccinated 3 to 6 weeks prior to breeding. A second 2 cc dose is recommended in swine 3 to 6 weeks later. Safe for use in pregnant cows. Milk from lactating cows does not have to be withheld. The dosage is 2 cc administered intramuscularly. Consult label for full directions.

AVAILABLE IN: 10 dose and 50 dose plastic vials.

1 cc = 1 ml



## ANCHOR ANIMAL HEALTH PRODUCTS

### LITTER-MATE® (with Neomycin)

LITTER-MATE® is indicated as an aid in the treatment and control of baby pig scours. Contains: Neomycin, an excellent antibiotic for control of intestinal disease bacteria. Give LITTER-MATE with neomycin as treatment. Consult product directions and warnings before using.

AVAILABLE IN: pint; w/plunger.



### LIVESTOCK SPRAY & BACKRUBBER Delnav

Contains 15% Delnav liquid concentrate — an organophosphate which gives outstanding control of resistant and hard-to-kill parasites. How-to-use: Use as a spray for cattle, hogs, sheep, goats and can be used as a backrubber solution for beef cattle. One quart makes 25 gallons of finished spray solution. Pests controlled: horn flies, cattle lice, ear ticks, lone-star ticks, sheep ticks, sheep lice, goat lice, wool maggots, hog lice. See label for complete cautions and directions. Dilute before using.

AVAILABLE IN: gallons.

### LIVESTOCK—LITTER DUST Methoxychlor & Malathion

Contains Methoxychlor and Malathion for dust application. How-to-use: Dust animal and rub in lightly beneath hair. Dust gun can be used. Begin dusting animals in the spring when insects first appear. May be dusted on baby pigs and farrowing house litter. Pests controlled: horn flies, lice, fleas, ticks and mites. See label for complete cautions and directions.

AVAILABLE IN: 25 pound reusable plastic pail.

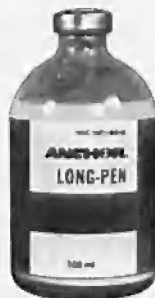
### LONG PEN

(150,000 IU of Penicillin G Benzathine and 150,000 IU of Penicillin G Procaine) Aqueous Solution

An antibiotic combination containing two penicillins. To be used SUBCUTANEOUSLY ONLY with beef cattle for treatment of penicillin-susceptible organisms as with bacterial pneumonia, upper respiratory tract infections (e.g., rhinitis & pharyngitis), blackleg, and prophylaxis of bovine shipping fever in 300-500 lb. beef calves.

Long-acting action helps control relapses and reinfection. Just a single dose provides treatment/prevention for 48 hours. Low dosage also reduces labor and number of injections. As a result, handling and stress to sick animals is reduced. Consult label for complete cautions and directions before using.

AVAILABLE IN: 100 and 250 ml vials.



### MANGE LOTION (Dogs)

For the treatment and control of sarcoptic mange in dogs. Kills mange mites and controls secondary infections with a combination of four active ingredients. This convenient, easy-to-apply product can be applied directly to the infected area. The lotion is non-greasy with a pleasing smell. Before applying MANGE LOTION, clip the dog, wash, and then apply thoroughly as directed. Consult directions with product before using. Do not use on cats or nursing puppies.

AVAILABLE IN: 8 oz containers.

### MANGE & LOUSE SPRAY Lindane

Contains 12.5% lindane for use on beef cattle, hogs and sheep. How-to-use: Can be used to spray livestock or as a residual premise spray coating walls and ceilings in barns where insects congregate. (Do not use in dairy barns, milk rooms or poultry houses.) Pests controlled: Psoroptic mites, mange, lice, ticks, flies, mosquitoes, gnats and roaches in buildings. See label for complete cautions and directions. Dilute before using.

AVAILABLE IN: quarts and gallons.

1 cc = 1 ml

# OXY-TET 100™

(OXYTETRACYCLINE HCl)

(100 mg of Oxytetracycline base as Oxytetracycline HCl per ml)

Anchor OXY-TET has earned the livestockman's confidence over the years because its unique formulation provides rapid, high antibiotic blood levels for control of the major cattle diseases. OXY-TET 100 is indicated in the treatment of pneumonia and shipping fever complex associated with *Pasteurella spp*, *Haemophilus spp*, *Klebsiella spp*, foot rot and diphtheria caused by *Fusobacterium necrophorum*, bacterial enteritis (scours) caused by *Escherichia coli*, woody tongue caused by *Actinobacillus lignieresii*, acute metritis, and wound infections caused by Staphylococcal and Streptococcal organisms. See package insert for complete directions, warnings and cautions.

AVAILABLE IN: 100 cc and 500 cc vials.



# OXY-TET 50™

(OXYTETRACYCLINE HCl)

Broad-Spectrum Antibiotic

When infection strikes protect your investment with time-proven oxytetracycline in a less painful, less injurious injectable form that gives high blood levels fast and is safer to use. For control of shipping fever complex, pneumonia, foot rot, diphtheria, bacterial enteritis (scours), leptospirosis, woody tongue, metritis and wound infections when caused by oxytetracycline susceptible organisms. For treatment of bacterial enteritis, scours, pneumonia, and leptospirosis in swine. See package insert for complete directions, warnings and cautions.

AVAILABLE IN: 100 cc and 500 cc vials.



1 cc = 1 ml



## ANCHOR ANIMAL HEALTH PRODUCTS

# PARVO-VAC

(Canine parvovirus Vaccine; liquid, modified live-feline cell line origin)



**Rapid, long-term canine  
parvoviral immunity is  
achieved within  
4-5 days.**

The vaccine is non-shedding, does not revert to virulence, and does not cause post-vaccinal reactions. A versatile, liquid product with disposable syringe and needle provided. Can be administered IM or SQ. See label directions before using.

AVAILABLE IN: 1 dose single pak with syringe.

## PIPERAZINE WATER WORMER 17%

For the removal of large roundworms (*Ascaris lumbricoides*) and nodular worms (*Oesophagostomum spp.*) from swine; roundworms (*Ascaridia spp.*) from poultry; ascarids (*Parascaris equorum*), strongyles (*Strongylus vulgaris*), small strongyles, and pinworms (*Oxyuris equi*) from horses; *Toxocara canis* and *Toxascaris leonina* from dogs. Consult directions with product before using.

AVAILABLE IN: 8 oz, 16 oz, 32 oz and one gallon plastic containers.

## PINKEYE-LID

A revolutionary cover for the cow or calf's infected eye is now available. A solid top half gives positive protection against irritating sun rays, rain, pollen, and dust while the strong mesh lower part permits the animal to see. Much needed ventilation gets to the eye, yet flies and foreign materials are screened out. Retreatment with Anchor Pinkeye Spray directly through the mesh avoids having to remove the old style patch. This improved design overcomes the problem of infection and moisture building up unobserved under the old solid covers. Glue, included, holds lid firmly in place for the usual time required for healing. Consult directions with product before using.

AVAILABLE IN: Package of 10 eye patches and one tube of Pinkeye-Lid glue, adult or calf size.

## PINKEYE-LID GLUE

A tubed glue for application to the outer edge of the inside surface of Anchor's Pinkeye Lid. Selected from many available formulas, this particular glue, when properly applied, holds for the optimal duration for healing. Appropriate also for application of sale tags or adhesion of bandage edges to the skin or haired surface. Consult directions with product before using.

AVAILABLE IN: 5 oz tube.

1 cc = 1 ml

## ANCHOR ANIMAL HEALTH PRODUCTS

# PERMECTRIN™ 10% E.C.

A unique, new generation insecticide with highly effective, long lasting action.

**HOW TO USE:** Use around horse, beef cattle, dairy cattle, swine, pet and poultry premises for control against a wide variety of flies and other farm insects.

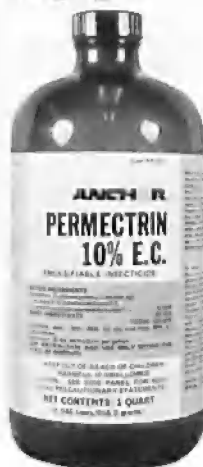
**ECONOMICAL:** Due to long-term effectiveness which means fewer applications.

**SAFE:** Due to low toxicity, infrequent applications and rapid biodegradability.

**CONVENIENT:** It is easy to mix with water for desired amount of area to be sprayed.

Check your individual state regulations and approvals. Consult directions with product before using.

AVAILABLE IN: 8 oz., Quarts.



# PERMECTRIN™ 25% Wettable Powder

(see above for description and benefits)

AVAILABLE IN: 1 pound jars.



SPECIALLY DESIGNED to be an insecticide tag and strip. New design provides greater useful surface area to brush more hair coat for effective control of insect pests.

PERMECTRIN EAR TAGS AND STRIPS are for use on dry or lactating dairy and beef cattle and calves to control horn flies, Gulf Coast ticks and spinose ear ticks and as an aid to control lice, stable flies and houseflies on cattle, horses, swine or sheep.

EASY, VERSATILE APPLICATION. Attach to ear with conventional stud or use cable tie to fasten tag or strip to I.D. tags, bridles, halters, neck chains, tails, etc. Consult directions with product before using.

AVAILABLE IN: Tags 24's, Strips 12's and 48's.

1 cc = 1 ml

# ANCHOR ANIMAL HEALTH PRODUCTS

## PROCAINE PENICILLIN Aqueous (Injectable)

The antibiotic activity of this low cost product recommends its use as a treatment of bacterial infections caused by penicillin sensitive organisms. Dosage 1 cc per 100 pounds of body weight. Consult directions and warnings with product before using. Aqueous suspension.

AVAILABLE IN: 100 cc vials.

## PUPPY-VAC (formerly Solo-Jec-M) MEASLES VACCINE

(For resistance against distemper in young pups)

Distemper protection in the puppy is now possible without the problems once associated with puppy shots. Puppy-Vac should be given to puppies between 3 and 6 weeks of age. This gives them rapid protection against distemper which lasts until they can be given Solo Jec L at 14 to 16 weeks of age for more permanent resistance against distemper, hepatitis, and leptospirosis. Normally, distemper antibodies from the bitch's milk protect the puppy during its very early life. These antibodies, however, do not "neutralize" Puppy-Vac. Puppy-Vac cannot cause distemper symptoms because it is not a distemper viral product. It bridges the gap when puppies may be too old for maternal protection and too young for "permanent" shots. Consult directions with product before using.

AVAILABLE IN: 1 dose vials complete with syringe.

## Ronnel

## SCREW WORM & EAR TICK SPRAY

For the control and treatment of screw worm, fleece worm, and blow fly infestation. Kills screw worms and blow fly larvae (maggots) quickly. How-to-use: spray wound until wet. Repeat application at 5 to 7 day intervals until healed. Apply to open or fresh wound when docking, castrating, shearing, dehorning or ear marking. Safe for pregnant animals. No milk withdrawal. See label for complete cautions and directions.

AVAILABLE IN: 10 oz aerosol.



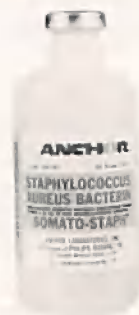
## SOMATO-STAPH®

(Staphylococcus aureus Bacterin)

*Staph. aureus* is the causative organism in over 60% of all cases of mastitis in dairy cattle. Due to its ability to "reside" in scar tissue within the udder, *Staph aureus* is difficult to treat with conventional antibiotics. Prevention through vaccination is the only practical method of control. Replacement heifers should be started on a Somato-Staph health program by 6 months of age with a booster in three to four weeks. Thereafter, a booster should be given every 5-6 months throughout the cow's milking life. Somato-Staph is safe for use in pregnant cows, and lactating cows can be vaccinated without discarding milk. The dose is 5 cc administered intramuscularly. Consult label for complete directions.

AVAILABLE IN: 10 dose and 50 dose plastic vials.

1 cc = 1 ml



# ANCHOR ANIMAL HEALTH PRODUCTS

## SODIUM IODIDE 20%

Intravenous injection for "lumpy jaw" or parenteral treatment of ringworm and foot rot. Consult directions with product before using.

AVAILABLE IN: 250 cc bottles.

## SILA-LATOR 2X™

Lactic acid starter culture for silage, haylage, and cracked high-moisture corn.

An inoculant for use in ensiling high-moisture crops and products. Enriches natural bacterial content to assure an adequate supply of good fermentation bacteria. Speeds up fermentation to reduce time during which spoilage bacteria can get a foothold, early in the fermentation. Contains five selected lactic acid-producing bacteria plus enzymes which assists their rapid growth to condition silage.

Apply at the rate of ½ pound per ton, saves bulk, storage, and transportation costs. Consult package for complete directions.

Helps prevent losses due to overheating, run-off, and spoilage.

AVAILABLE IN: 50 lb bags — Treats 50 tons.

## SILAGE INOCULANT 160X™

(Soluble Concentrate)

A starter-culture inoculant for all silages such as corn, grasses, legumes, oats, vegetable waste, high-moisture milled corn, etc.

This "easy-to-use" water-soluble form of silage inoculant permits convenient spray application. Contains in highly-concentrated form a tremendous population of inoculant organisms freeze-dried for easy handling and storage.

Seven selected strains of bacterial fermentation species assure a rich inoculant capable of quickly producing enough preservative lactic acid to help control spoilage, run-off, and overheating bacteria. Two concentrated enzymes help our preservative bacteria grow rapidly to quickly inhibit spoilage bacteria. Consult directions with product before using.

AVAILABLE IN: 30 oz thermo bottles and 5 oz envelopes. Each ounce treats 10 tons.

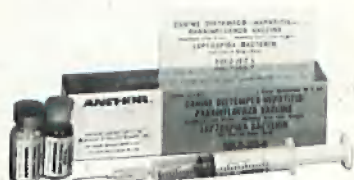


## SOLO-JEC-5™

(Canine Distemper-Hepatitis-Parainfluenza Vaccine, *Leptospira canicola*, *icterhaemorrhagiae* Bacterin)

A combination vaccine for protection of puppies and grown dogs against distemper, hepatitis, "Kennel Cough" and two types of leptospira. Solo-Jec-5 offers a safe, easy and economical way to protect dogs. The syringe package comes complete with vaccine, syringe, needle and instructions. The small 1 cc dose makes vaccination easy for both the dog and owner. Pups should be vaccinated at nine weeks of age. The dose should be repeated in three to four weeks. Adult dogs should receive an annual booster dose for added protection. Consult package for complete directions.

AVAILABLE IN: 1 dose package with syringe; also in 10 x 1 dose package, w/o syringe. 1 cc = 1 ml





## ANCHOR ANIMAL HEALTH PRODUCTS

# SOLO-JEC-6™

### Combination Vaccine with Parvo

(Canine Distemper-Hepatitis-Parainfluenza-Parvovirus Vaccine with *Leptospira canicola-icterohaemorrhagiae* Bacterin)



Protection against Parvo plus five other canine disease agents in one convenient product. Complete, ready-to-use package contains Solo-Jec-6™, disposable syringe, and instructions. Easy-to-administer either IM or SQ. Parvo fraction (1) does not interfere with dog's ability to respond to distemper fraction; (2) is non-transmissible; and (3) provides rapid immune response plus long-term immunity. Consult directions with product before using.

AVAILABLE IN: 1 dose with syringe or 10 x 1 dose without syringe.

### SOLO-JEC-L™ 1 cc Dose COMBINATION VACCINE

(Canine Distemper-Hepatitis-Leptospira canicola-ictero)

A dual modified live virus distemper and hepatitis fraction from monkey cell line, plus a *Leptospira ictero-canicola* bacterin diluent to give 4-way protection to healthy, unexposed, susceptible dogs and puppies. Consult directions with product before using.

AVAILABLE IN: Single dose vials complete with syringe.

### SULFA-UREA BOLUSES (For Cattle)

For use as an aid in treating infections of the uterus (womb) associated with retained afterbirth in cattle. Insert two or three boluses as far as possible into each horn of the uterus. Contains urea and two sulfa drugs in a fast dissolving base. Consult directions and warnings with product before using.

AVAILABLE IN: jars of 25's.

### SUL-MYCIN

# CALF SCOUR PNEUMONIA

### BOLUS



A very effective combination bolus for the control and treatment of bacterial pneumonia and scours caused by sulfamethazine- and neomycin-susceptible organisms. Also contains vitamin A, D, & niacin. Consult directions with product before using.

AVAILABLE IN: bottles containing 25 and 100 boluses.

1 cc = 1 ml



# ANCHOR ANIMAL HEALTH PRODUCTS



## Steer Growth Implant

**(200 mg progesterone and 20 mg of estradiol benzoate)**

A new growth promotant for steers weighing 400 lbs. and above. STEER-oid™ uses the same progesterone/estradiol formula tested for years in feedlots throughout the country. According to trial results, STEER-oid™ can significantly improve feedlot performance. It results in:

- **Greater feed efficiency**
- **Increased daily weight gains**
- **Reduced feeding costs**
- **More meat; less fat**
- **No withholding before slaughter**
- **Fits easily into a single-dose implanter**
- **Moisture-protecting resealable foil pouch**



A single dose of eight pellets is contained in each plastic cartridge of STEER-oid™. Pellets are deposited on the back side of the middle one-third of the ear. Consult directions with product before using.

AVAILABLE IN: 100 dose packages.

1 cc = 1 ml

# ANCHOR ANIMAL HEALTH PRODUCTS

## SEPTI-LUBE

A highly effective lubricant for use on hands and arms during operations such as assisting in delivery of offspring . . . Also effective for lubricating equipment. Consult directions with product before using.

AVAILABLE IN: 8 oz squeeze applicator and one gallon plastic containers.

## SWINE PREMIX with FEED-MATE™

A concentrated, multi-purpose micronutrient feed additive to fill the balancing requirements for formulating swine feed. May also be added to any feed. Consult directions with product before using.

Now features three selected strains of Anchor's beneficial organisms which inoculate the intestine to establish or maintain a healthful balance of normal bacterial populations. Bacterial spectrum includes the lysine-producing *Lactobacillus plantarum*. A potent digestive enzyme is included.

AVAILABLE IN: 40 lb bags.

## TRIPLE BACTERIN

See Bar-Vac® CSP. See page 56.

## TRIPLE SULFA BOLUSES

For oral use as an aid in treatment of hemorrhagic septicemia, "shipping fever," bacterial pneumonia, and infectious bacterial scours in cattle, horses, sheep and swine. One of the main advantages in the use of a triple sulfa preparation is that the anti-bacterial action may be increased without increasing the possibility of side reactions. Consult directions and warnings with product before using.

AVAILABLE IN: boxes of 50's.

## TRI-SULFA INJECTABLE 24%

A combination of sulfapyridine, sulfamethazine and sulfathiazole for treatment of pneumonia, bacterial infections associated with "shipping fever," foot rot, calf diphtheria and enteritis. Administered intravenously or intraperitoneally. Consult directions and warning with product before using.

AVAILABLE IN: 500 cc plastic bottles.



## TRUE ANTIBIOTIC 10

Treat mastitis with True Antibiotic 10 containing 100,000 units of procaine penicillin G per tube. Especially recommended for *Streptococcus agalactiae*, *Streptococcus dysgalactiae*, and *Streptococcus uberis*. Treat at the first signs of mastitis and every 12 hours for 3 times for best results. Milk withholding time is 60 hours after the last treatment. Avoid milk losses and uneven udders, treat promptly. Consult directions and warnings with product before using.

AVAILABLE IN: 10 ml syringe (packed 12 per display).

1 cc = 1 ml

# ANCHOR ANIMAL HEALTH PRODUCTS

## UDDERMATE

A highly concentrated udder infusion product containing 300 mg of erythromycin per 6 cc dose. Effective against staph and strep infections. Special base facilitates rapid absorption of active ingredients by udder tissue resulting in 95% of the antibiotic remaining in the udder. Rapid milk-out, only 36 hours withholding. Read directions and warnings with product before using.

AVAILABLE IN: 6 cc single dose disposable syringes in convenient packs of 12.

## UTERINE CARE

A sulfanilamide and urea solution is used as a uterine infusion to prevent and treat bacterial metritis. UTERINE CARE inhibits bacterial action, reduces toxicity and aids removal of dead tissue. Consult directions and warnings with product before using.

AVAILABLE IN: 250 cc plastic bottles, with cannula.

## VIBRIO-3<sup>®</sup> (Vibrio Fetus Bacterin)

VIBRIO-3 should be used in female cattle for the prevention of infertility, delayed conception (settling), or abortions associated with *Vibrio fetus* infection. Can be administered Sub Q or IM. Inject 2 cc dose 2 to 3 weeks prior to breeding. A second injection fourteen days later may be warranted in highly infective areas, then one booster dose annually to maintain protection. Safe for pregnant animals. No milk withdrawal. Consult directions before using.

AVAILABLE IN: 20 cc and 100 cc plastic vials.

## VIBRIO-LEPTO

(Vibrio fetus-Leptospira pomona Bacterin)

New 5 ml combined dose gives immunity against both vibriosis and *Lepto pomona*. Protects against infertility, abortions, delayed conception, and strung out calf crops resulting from vibriosis and leptospirosis. Polyvalent vibrio fraction provides broad antigenic coverage. No single strain vibrio vaccine has shown this capability. Safe for pregnant animals. No milk withdrawal. Read product label and insert before using.

AVAILABLE IN: 10 dose and 50 dose plastic vials.

## VIBRIO-LEPTO 5

(Vibrio fetus-Leptospira canicola-grippotyphosa-hardjo-icterohaemorrhagiae-pomona Bacterin)

Protect your beef and dairy breeding herds against organisms causing two major reproductive diseases — vibriosis (infertility, strung out calf crop, and repeat breeders) and leptospirosis (abortion storm, stillborn calves, and weakened or anemic calves). Vibrio-Lepto 5 is free of foreign animal serum commonly associated with shock reactions. It is adjuvanted with aluminum hydroxide to provide surest protection. Administer 5-ml dose IM. Consult directions with product before using.

AVAILABLE IN: 10 dose and 50 dose vials.

1 cc = 1 ml



# ANCHOR ANIMAL HEALTH PRODUCTS

## VITAMIN A-D-B<sub>12</sub> INJECTABLE

(500,000 IU A, 75,000 IU D, 500 mcg B<sub>12</sub> per cc)

An emulsifiable solution of vitamins A, D, and B<sub>12</sub> for control and treatment of deficiencies of these vitamins in weak and poor-doing animals, in brood stock and in the newborn. Consult directions with the package before using.

AVAILABLE IN: 100 cc and 250 cc glass vials.

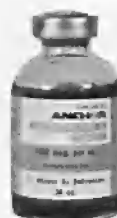
## VITAMIN A-D-500 (Water Miscible)

A concentrated water-miscible injectable form of vitamins A and D for the prevention and treatment of vitamin A and D deficiencies. Consult label copy for complete indications and usage.

AVAILABLE IN: 100 cc and 250 cc vials.

## VITAMIN B<sub>12</sub> (1000 mcgm/cc) Hydroxocobalamin Injection

An analog of vitamin B<sub>12</sub> for use in vitamin B<sub>12</sub> deficiencies. Hydroxocobalamin characteristically demonstrates a blood serum level of longer duration than Cyanocobalamin. Consult package insert and label for complete directions before using.



AVAILABLE IN: 30 cc vials.

## VITAMIN B<sub>12</sub> (1000 mcgm/cc) Cyanocobalamin Injectable

An injectable solution of vitamin B<sub>12</sub> for vitamin B<sub>12</sub> deficiencies. Consult package insert and label for complete directions, indications, and usage.

AVAILABLE IN: 50 cc and 250 cc vials.

## VITAMIN E Injectable

This product should be administered to cattle when vitamin E deficiencies are apparent. Consult directions before using.

AVAILABLE IN: 100 cc vials.

1 cc = 1 ml

# INTESTINAL MICROORGANISMS

In the process of development and evolution down through the centuries, the digestive tracts of warm-blooded animals have been colonized by microorganisms (germs) adapted to the environment within the digestive tract. As a result of thousands of years of this mutual association, the relationship of the animal host and the established mixture of microorganism species has approached a single system wherein each component is mutually dependent on and regulated by the other. Therefore, if the wrong microorganisms are introduced into the digestive tract, the host can be damaged; whereas, if the right microorganisms are present in the digestive tract the host animal approaches an ideal state. Also, if the flora becomes highly antagonistic to the host, then the host animal may use its defense mechanisms to damage the organism; whereas host contributions to friendly microorganisms are largely beneficial. The digestive tract may be colonized by microorganisms clearly detrimental to the host such as *Salmonella*, resulting in a clinical disease in which either the host recovers by elimination of the disease organism (pathogens) or the pathogen may kill the host.

After several years of use for treatment of disease, the first experiments with antibiotics as feed additives were carried out in 1946. In the ensuing 30 years this method of disease prevention has come to be considered the most positive approach to increased growth rates, and the term "growth stimulators" is commonly used.

However, in the last few years we have begun to hear criticism of the low level antibiotic approach. Antibiotics added to the feed may have caused bacterial resistance to develop, leading to a possible lack of therapeutic efficacy when these antibiotics are used in the treatment of disease. Also, because of this bacterial resistance, efficiency of a given antibiotic as an effective feed additive is relatively short lived and new antibiotics are constantly required.

The trend towards concentrating livestock into smaller and smaller areas will no doubt continue. Therefore, it behooves us to find a better method for modification of the pathogenic (disease-organism) flora that are commonly found to increase under these crowded conditions.

It has been proposed for many years that inoculation of the gastro-intestinal tract with beneficial or naturally non-pathogenic microorganisms might result in the preservation of more natural biological conditions within and among the animals. Expected benefits to be derived from this approach to the control of pathogenic flora are as follows:

- (1) Elimination of drugs from animal feeds leading to an increase in susceptibility of pathogenic organisms to these drugs.
- (2) Significant decrease in gastro-intestinal disturbances related to reduction of normal beneficial micro-flora.
- (3) Associated improvement of feed utilization and weight gains.

In the early 1900's Dr. Ely Metchnikoff, a colleague of Louis Pasteur and a Nobel prize winner, described the existence of a flora marginally detrimental to the host. These bacteria, yeasts, and molds produced a continuous and chronic deterioration of the host tissue as a result of unspecified toxic products. This concept was developed after observations that long-lived Bulgarians consumed large quantities of a fermented milk containing lactic acid-producing bacteria.

The significance of selected bacteria to intestinal well being and in the interruption of certain diseases is now well documented. Lactic acid bacteria have been employed in preventing overgrowth by antibiotic resistant species of *Candida*, *Pseudomonas*, *Staphylococcus* and *E. coli* during antibiotic therapy. Although these lactic acid bacteria were observed to be antagonistic to certain species they are also beneficial to other microorganisms of the gut and have contributed to intestinal microbial balance.

One of the more common lactic acid-producing bacteria found in the digestive tract of both man and animals is *Streptococcus faecium*.

Some fifteen years ago a particular strain of *Streptococcus faecium* was isolated which was found to grow readily in animals' digestive tracts. This strain, Cernelle 68, is a key ingredient of Anchor FEED-MATE products. Results of investigations relative to the application of this strain of bacteria to animal husbandry are available from the Technical Services Division of Anchor Laboratories, Inc.

FEED-MATE 68 has been developed with the intended purpose of replacing antibiotics in feed and, by so doing, reducing the appearance of resistant bacterial strains that can not in case of disease be successfully treated with sulfas and antibiotics.

*Streptococcus faecium* Cernelle 68 produces lactic acid as a by-product of its own metabolism. This lactic acid lowers the pH of the material in the upper intestines and thus produces a less favorable environment for the coliform bacteria.



# INSTRUMENTS

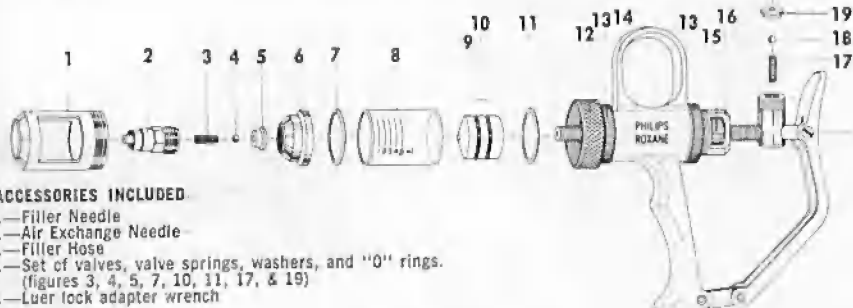


## PHILIPS ROXANE SELF-FILLING AUTOMATIC SYRINGE

operated with one hand. When the plunger is released after each injection, the syringe automatically refills without inverting tank bottle.

Excellent for multiple dose administration of biologicals and injectable pharmaceuticals. The barrel is shock proof and precision ground for accurate 1 to 5 cc doses. The unit includes a spare set of valves, spring, washers and "O" rings, plus a 4½ ft. silicone filler hose. Replacement parts are readily available.

- |                               |  |                                 |
|-------------------------------|--|---------------------------------|
| 1. Metal Barrel Frame         | 9. Piston  | 15. Dosage Regulator Nut        |
| 2. Luer Lock Adapter          | 10. "O" Ring Valves  | 16. Dosage Regulator Nut Clamp  |
| 3. Exit Valve Spring (small)  | 11. Rear Barrel Washer (plastic)   | 17. Filler Valve Spring (large) |
| 4. Exit Ball Valve (small)    | 12. Metal Frame Receiver   | 18. Filler Ball Valve (large)   |
| 5. Exit Valve Washer (small)  | 13. Forward & Rear Locking Nut   | 19. Filler Valve Washer (large) |
| 6. End Tablet                 | 14. Pistol Grip Handle—complete (grip, palm rest, piston rod, piston spring) | 20. Filler Hose Adapter         |
| 7. End Tablet Washer (rubber) |  | 21. Filler Hose                 |
| 8. Glass Barrel               |  |                                 |
- Note: Figures 3, 4, 5, 7, 17, 18, & 19 are sold as a set only (valve kit).  
Figures 7, 10, & 11 are sold as a set only ("O" ring kit).



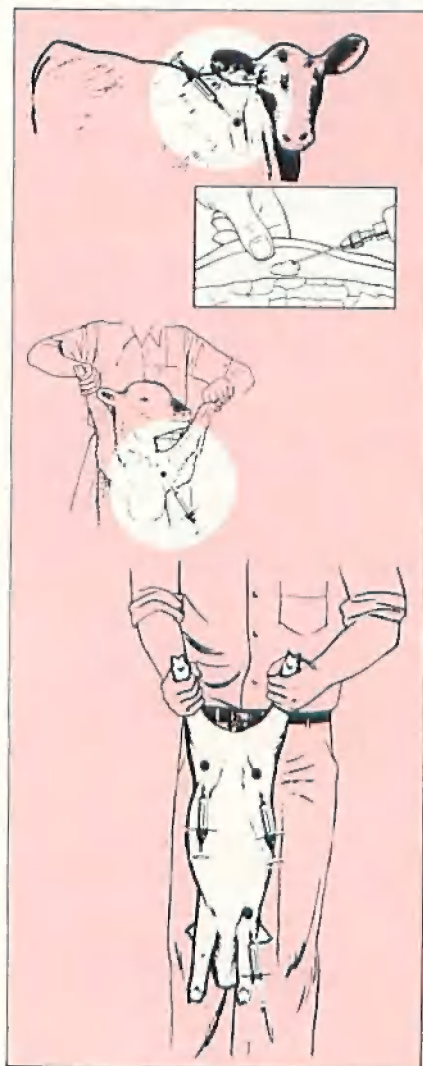
### ACCESSORIES INCLUDED

- 1—Filler Needle
- 1—Air Exchange Needle
- 1—Filler Hose
- 1—Set of valves, valve springs, washers, and "O" rings. (figures 3, 4, 5, 7, 10, 11, 17, & 19)
- 1—Luer lock adapter wrench

# INJECTION SITES AND METHODS

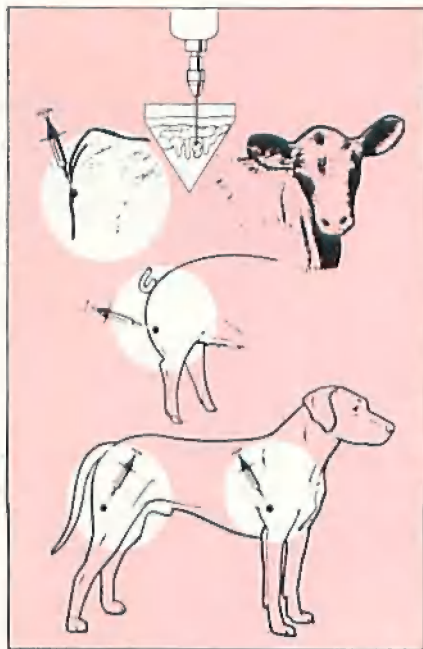
## Subcutaneous Injection

Subcutaneous Injections (Sub Q). Made in any area where skin fits loosely (neck, chest wall, "armpit" or flank). Cleanse small area with alcohol, pick up skin to facilitate needle entry, insert needle through skin and discharge dosage. Massage area to facilitate distribution.



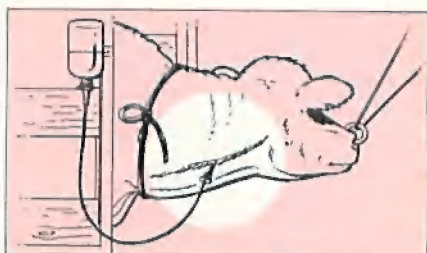
## Intramuscular Injection

Intramuscular Injection (IM). Made deeply into large muscle (thigh). Cleanse an area and insert needle. Use a needle at least  $\frac{3}{4}$ " in length.



## Intravenous Injection in Cattle

Apply a choke rope sufficiently tight to cause distention of the jugular vein. Insert a sharp 14 or 16 gauge  $1\frac{1}{2}$  to 2 inch needle into the vein with the point toward the heart. Be sure blood flows freely from the needle. Release choke rope. Attach syringe or IV tube to needle and administer medication. Constant attention during administration is necessary to be sure the needle remains in the vein.

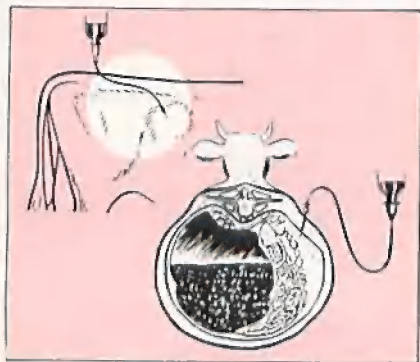


## Intraperitoneal Injection

Intraperitoneal Injection (IP). (1) Use a 14 or 16 ga. 2½" or 3" needle. (2) Warm solution to body temperature prior to administration. Use sterile precautions.

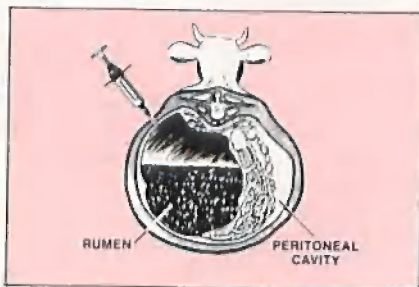
### CATTLE

Insert needle into right flank at a point in the center of the triangle formed by the loin, last rib and a line from the top of the last rib to the hip bone.



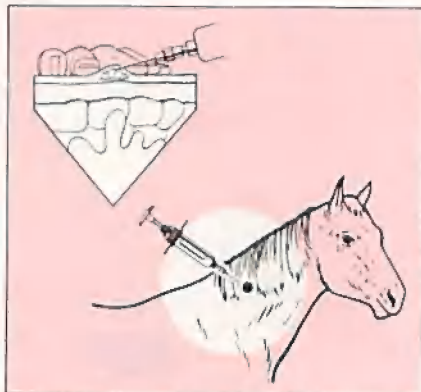
## Intraruminal Injection

Intrarumen Injection (IR). Use to treat bloat. Insert needle through LEFT flank. Use 14 ga. x 3" needle. Needle inserted correctly if gas or liquid from stomach returns through needle.



## Intradermal Injection

Intradermal (ID). Inject 20-26 ga. needle into skin. Intradermal injection should raise a blister. Shave hair prior to injection.



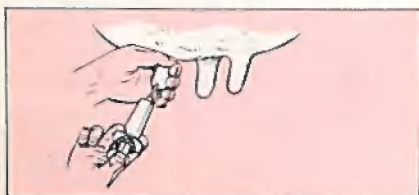
### SWINE

Insert needle through the abdominal wall at a point in the rear ¼ mid-line area of the abdomen while the pig is hanging head down.

Care should be taken not to insert needle into forward area where organs have congregated.

## Infusion Intramammary

Intramammary (IMM). Disinfect teat. Depress teat to open sphincter muscle, insert sterile cannula and force medication into teat canal. Disinfect teat after infusion.



# ANAPHYLAXIS—Anaphylactic Shock

Anaphylaxis is the reaction which sometimes occurs when the body is repeatedly exposed to a specific foreign protein (bacterins, serums, vaccines, or antibiotics), or to foreign proteins similar to those previously injected. The reaction may be systemic (anaphylactic shock), or local (hives, hay fever, asthma, etc.).

Initial foreign protein injections cause the body to produce immune bodies (circulating antibody) in the majority of animals. This antibody circulates in the blood and serves to protect the animal against disease. In some instances, however, the antibody produced is fixed antibody (attached to tissue cells). This fixed antibody reacts with a repeat injection of the specific foreign protein, or to a similar foreign protein, and during the reaction, the tissue cells are damaged. Histamine (a chemical poison) is released from the damaged tissue cells, and causes anaphylaxis of a systemic (shock) or local (hives) type. Histamine's primary effect is upon smooth muscle, especially that in the walls of blood vessels. These muscles relax and blood pressure and blood flow decrease. This decreased blood flow causes the symptoms of anaphylaxis. The reaction may occur within minutes of the repeat injection, or may be delayed for hours, depending upon the amount of foreign protein and fixed antibody involved in the reaction.


**Symptoms of anaphylaxis include:**

1. Glassy eyes
2. Increased salivation
3. Grinding of the teeth
4. Rapid breathing
5. Muscular tremors or shivering
6. Staggering gait
7. Collapse with death following

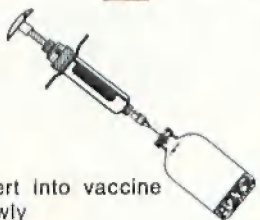
Treatment of anaphylactic reaction by injection of Epinephrine Solution routinely results in immediate recovery. The number of cases of anaphylaxis are increasing slightly, because of the increase in the use of vaccines and injectable pharmaceuticals. Consult complete directions on products before using.

## VACCINE REHYDRATION

Many vaccines used today are termed "modified-live" and require a special production process referred to as freeze drying. This process removes all the liquid by a method similar to that used to freeze-dry coffee. In order to administer the vaccine, it must be dissolved by the addition of a liquid, either sterile distilled water or a liquid bacterin or vaccine. This process is referred to as rehydration. These diagrams illustrate correct procedure:

- 

1.



2.
- Draw liquid diluent (water) or liquid vaccine into a syringe.

Insert into vaccine bottle and shake slowly
3. Transfer entire contents of liquid to vaccine bottle in this manner.

4. Shake gently to completely suspend vaccine.
5. Proceed with vaccination.

**Caution: entire contents should be used when first opened.**



# SYRINGE USE AND CARE

Use a syringe that is clean and in good working order. The following care suggestions are helpful:

A. Boiling is the most satisfactory method of sterilization.

1. Dismantle plunger, barrel and barrel case and place these and needles to be used in cool water and bring to a boil. Boil 10 minutes.

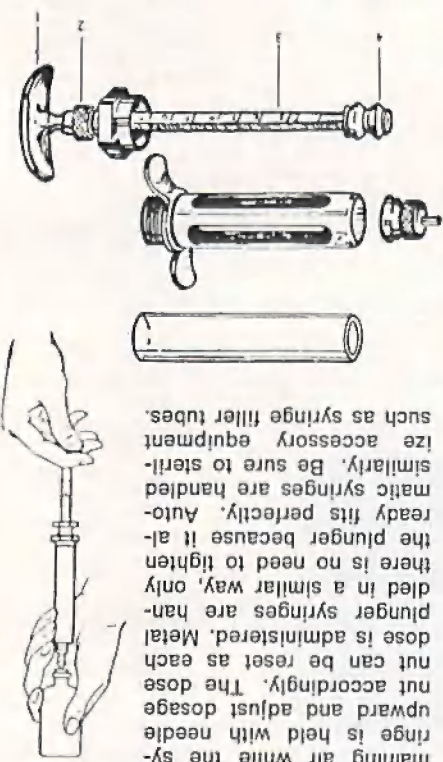
2. After cooling, reassemble carefully to avoid contamination.

3. Chemical sterilization with alcohol or other disinfectants is unsatisfactory for instruments to be used for administering modified live virus vaccines. Chemically sterilized equipment should be rinsed in boiled water to reduce irritation by residual chemical.

B. After sterilization and reassembly, rubber plunger syringe may be handled as follows: Draw back plunger shaft (1) clockwise until packing fits firm rest (2) clockwise until packing fits enough to inside of barrel that liquid can be drawn into needle. Shaft (3) is graduated in fractions of cc. Dosage nut (2) should be run back to top of shaft, next to palm rest.

This means syringe barrel contains air between plunger and needle. Insert needle through bottle stopper, and inject air into bottle. This forces vaccine

or liquid through needle into syringe. Hold syringe in a vertical position (see illustration) and expel remaining air in syringe into bottle, allowing it to be replaced with liquid from bottle as plunger is pulled downward. If syringe holds more than bottle, expel remaining air while the syringe is held with needle upward and adjust dosage nut accordingly. The dose nut can be reset as each dose is administered. Metal plunger syringes are handled in a similar way, only there is no need to tighten the plunger because it already fits perfectly. Automatic syringes are handled similarly. Be sure to sterilize accessory equipment such as syringe filler tubes.



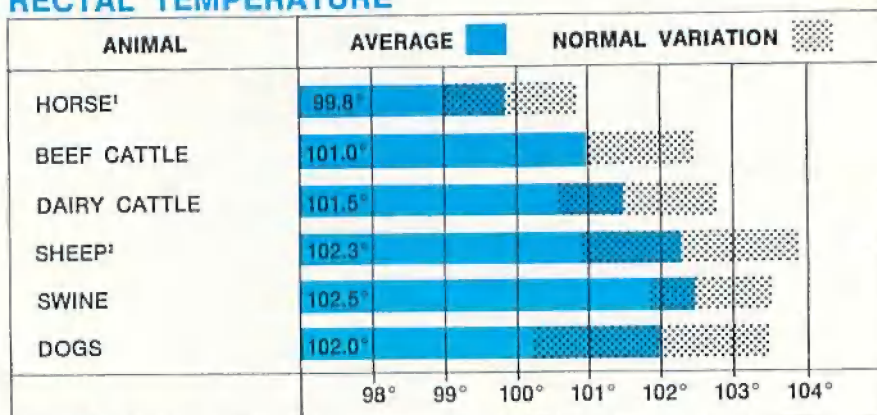
## Do's and Don'ts of Vaccination

1. Proper care of syringes and needles is important.
2. Use only the dose directed. Don't overdose or underdose.
3. Inject by proper route.
4. Throw away partially empty bottles if left unrefrigerated during use.
5. Don't expose live virus biologicals to sunlight.
6. Don't vaccinate meat producing animals within 21 days of slaughter.
7. Never stab or inject in primal cuts. Use shoulders or neck muscles.
8. Always get vaccination history if possible.
9. Immunity will develop after vaccination if (a) proper time is allowed, (b) animal is healthy when vaccinated, (c) vaccine is administered correctly, (d) animal is in an immunological state.
10. Change needles for each animal when anaplasmosis may be a problem in the herd.



# TEMPERATURE HEAT PERIOD GESTATION

## RECTAL TEMPERATURE



<sup>1</sup> Body temperature higher in young, lower in old age.

<sup>2</sup> Body temperature higher when in full fleece.

## HEAT PERIOD OF ANIMALS

Animal	Duration of Heat Period		Regularity of Heat Days Cycle		First Occurrence After Parturition
	Range	Average	Average	Variation	
Mare	2-11 days	6 days	22	16 to 30	3 to 15 days
Cow	8-30 hours	16 hours	21	18 to 24	30 to 60 days
Sow	1-5 days	2-3 days	21	18 to 24	1 to 8 weeks
Ewe	1-3 days	35 hours	16½	14 to 20	Depends upon breed, environment, and management
Goat	2-3 days	2½ days	21	15 to 24	
Bitch	4-13 days	9 days	Usually once during each seasonal period		
Cat	7-21 days				

## APPROXIMATE PERIODS OF PREGNANCY (days)

Animal	Range	Average
Mare	329 - 346	336
Cow	274 - 291	282
Sow	110 - 116	113
Ewe	140 - 160	150
Goat	140 - 160	151
Bitch	58 - 63	60
Cat		64

# FEED AND WATER CONSUMPTION TABLES

(APPROXIMATE FIGURES)

## CATTLE

WEIGHT	350 lbs.	500 lbs.	750 lbs.	1000 lbs. and over
Feed (lbs.) per day	1-10	5-14	to 20	to 22
Water (gals.) per day	1-5	2-6	10-15	20 or more

## HOGS

WEIGHT	25 lbs.	50 lbs.	75 lbs.	100 lbs.	150 lbs.	200 lbs.
Feed (lbs.) per day	1½	3	4½	5½	6¾	7½
Water (gals.) per day	¼ to ¾	½ to ¾	¾ to 1	1 to 1¼	1¼ to 1½	1¼ to 1½

## SHEEP

WEIGHT	Young Lambs	20 lbs.	40-60 lbs.	60-100 lbs.	100-200 lbs.
Feed (lbs.) per day	¼ to ½	1-2	1-3	1-5	1-6
Water (gals.) per day	½	½-1	1-3	1-3	1-4

## POULTRY (Chickens)

AGE	2 wks.	4 wks.	8 wks.	Laying
Feed (lbs.) per day/100 birds	3-4	5-6	13-15	20-30
Water (gals.) per day/100 birds	½-1	1.2 to 2	3-3½	5-7

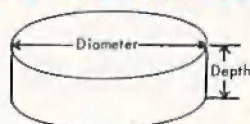
## TURKEYS

AGE	1 wk.	4 wks.	8 wks.	16 wks.	24 wks.
Feed (lbs.) per day/100 birds	1½	10	24	48	67
Water (gals.) per day/100 birds	1	3½	7½	17	17

## HOW TO FIGURE THE GALLON CAPACITY OF WATER TANKS

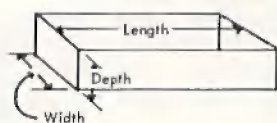
### Round or Circular Tank

To find gal. capacity:  
diam. × diam. × depth  
× 5.86 = gals.



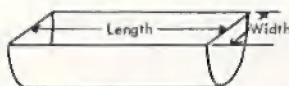
### Rectangular Tank or Trough

To find gal. capacity:  
Width × depth × length  
× 7.46 = gals.



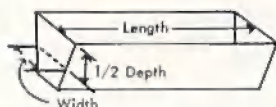
### Curved Bottom Trough

To find gal. capacity:  
Width × width × length  
× 2.93 = gals.



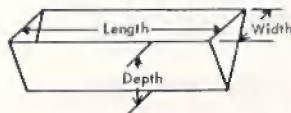
### Slanting Sides Trough

To find gal. capacity:  
Width (meas. at ½  
of depth) × depth ×  
length × 7.46 = gals.



### V Sides Trough

To find gal. capacity:  
Width × depth × length  
× 3.73 = gals.



After you have figured the gallonage of your tanks be sure to paint it on each tank.

# GLOSSARY

## AMINO ACIDS

Organic compounds which occur naturally in plant and animal tissues and form the chief constituents of protein.

## ANTHELMINTIC

A drug used to expel intestinal worms.

## ANTIBIOTIC

A substance produced by microorganisms or synthetically, (penicillin, Streptomycin, etc.) which has the ability to inhibit or destroy certain microorganisms.

## ANTIBODIES

Substances produced by the body as a reaction to many agents, (viruses, bacteria, toxins). Antibodies exert a specific action against the agent under whose influence they were formed.

## ANTIGEN

A substance which will stimulate the production of antibodies when introduced into the body. Vaccines contain antigens which stimulate the animal to build antibodies against disease.

## ANTIGEN (Killed or Inactive)

Substance which induces the primary or recognition stage of antibody production. A second injection is necessary several days after the first to induce the antibody production stage.

## ANTIGEN (Living)

Substance which stimulates both stages of antibody production.

## ANTISEPTIC

Inhibiting growth of microorganisms, or a material which inhibits such growth.

## ANTISERUM

Serum containing antibodies. It produces short-term protection, usually two to four weeks.

## ANTITOXIN

Serum containing specific poison-neutralizing antibodies.

## ASCARID

The large roundworm, an intestinal parasite.

## ASTRINGENT

A drug which contracts tissues and lessens secretions.

## ATROPHY

Wasting away or diminution in size of an organ, tissue or cell.

## ATTENUATION

The process of decreasing virulence or altering a disease producing agent by growing it in another host, usually for the purpose of making a vaccine.

## BACTERIA

A group of one-celled microorganisms, the smallest of the one-celled plants.

## BACTERICIDAL

Possessing the property of killing bacteria.

## BACTERIN

A product containing modified or killed bacteria, prepared for use as a vaccine.

## BIOLOGICAL

Medicament derived from a living source. Generally used for disease prevention. (See bacterin, vaccine, antiserum, antitoxin.)

## CAUSTIC

Corrosive; an agent capable of destroying living tissues.

## COCCIDIA

Protozoan organisms which, in poultry, cattle, dogs, and other animals, infect the cells lining the digestive tract.

## DILUENT

The liquid used to: 1. Restore dried vaccines. 2. Bring up to volume any substance.

## ELECTROLYTES

Compounds made from combinations of various mineral components which help keep the fluid balance of the body under control.

## ETIOLOGY

The cause of a disease.

## HEMORRHAGE

The loss of blood.

## IMMUNITY

The ability of the body to resist or to overcome infection. Antibodies play a large part in immunity. No immunity is absolute or perfect.

## IMMUNITY (Acquired)

The resistance a previously susceptible animal has to an infectious disease.

## IMMUNITY (Active)

Immunity in which the protective factors against a disease are produced within the body itself.

## IMMUNITY (Innate)

Inherited resistance to an infectious disease.

## IMMUNITY (Maternal)

A form of passive immunity resulting from immune factors being passed from the mother to the offspring. This may be accomplished either in the uterus, through the milk (especially the first milk or colostrum), or through the egg yolk in the case of birds.

## IMMUNITY (Passive)

Immunity resulting from the transfer of protective factors from one individual to another. This may be done artificially by obtaining serum from an immune animal and injecting it into a non-immune animal. Passive immunity is of short duration, measured in terms of days or weeks. Parental immunity is a natural form of passive immunity.

# GLOSSARY

## **INFECTION**

The successful invasion and growth of disease producing agents (bacteria, viruses, etc.) in the tissues of the body.

## **INFLAMMATION**

A specific response of the body to injury. Such injury may be due to living agents or from mechanical, chemical or electrical causes. Inflammation is characterized by redness, pain, heat and swelling.

## **INOCULATE**

To introduce immune serum, vaccines or other antigenic material for preventive, curative or experimental purpose.

## **INOCULANT (Inoculum)**

Material used for inoculation (bacteria, etc.)

## **INSECTICIDE**

An agent which kills insects.

## **INTRAMUSCULAR INJECTION (IM)**

An injection into a muscle.

## **INTRAPERITONEAL (IP)**

An injection into the abdominal cavity.

## **INTRAVENOUS (IV)**

Injection into a vein.

## **L.D.**

Lethal dose, a fatal dose.

## **L.D./50**

The dose which kills one half of the individuals inoculated.

## **METABOLISM**

The sum of all the physical and chemical processes by which living substance is produced and maintained.

## **PESTICIDE**

A poison used to destroy pests of any sort.

## **PHARMACEUTICAL**

A medicinal drug as opposed to biological.

## **SERUM**

The fluid portion of blood without the cells or the clotting factors. Serum obtained from animals immune to a particular condition and injected into other individuals in order to give the recipient a degree of passive immunity is known as antiserum.

## **STRESS**

The sum of all factors which tend to render the animal more vulnerable to disease. Stress may be environmental, nutritional, psychic, or physical.

## **SUBCLINICAL**

Without clinical manifestations, said of the early stages of, or a slight degree of, a given disease.

## **SUBCUTANEOUS (SQ)**

Situated or occurring beneath the skin.

## **TOXEMIA**

A general poisoning due to the absorption of toxins, usually bacterial products formed at the site of an infection. Literally: blood poisoning.

## **TOXIN**

Poisonous substance.

## **TOXOID**

A toxin which has been treated so as to destroy its toxicity but still leave it capable of stimulating the formation of antibodies when injected into the body.

## **TRAUMA**

A wound or injury.

## **TRAUMATIC**

Of, pertaining to, or caused by, injury.

## **VACCINES**

Products prepared for the purpose of giving active immunity. Vaccines may be made from viruses, bacteria, or protozoa, either living or killed, or from toxins.

## **VACCINES (Bacterial)**

A vaccine which protects against diseases caused by bacteria. See bacterin.

## **VACCINE (Killed Virus)**

A vaccine produced by infecting an animal, chick embryo or animal tissue with a specific virus. The virus is harvested at the height of infection and subjected to killing agents. The dead virus stimulates the production of antibodies when injected into an animal.

## **VACCINE (Live Virus)**

A vaccine produced by growing a live culture of the virus from which the vaccine is prepared.

## **VACCINE (Modified Live Virus)**

A vaccine made from an attenuated virus. (See attenuation.)

## **VACCINE (Monovalent)**

A vaccine which produces only one disease immunity.

## **VACCINE (Polyvalent)**

A vaccine which produces immunity against two or more diseases.

## **VACCINE (Viral)**

A vaccine which protects against diseases caused by viruses.

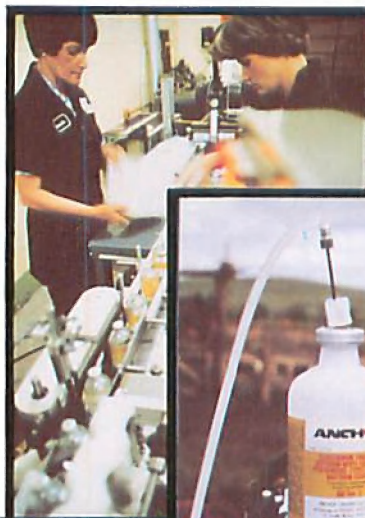
## **VIRUS**

Minute infectious agents, smaller than most bacteria and capable of multiplying only within a living, susceptible host cell. Viruses can remain alive for variable periods outside of living tissues. Some viruses produce severe disease, others are relatively harmless.



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